VIVA Energy Australia

Shell Lubricants
Macro Distributor

Viva Energy
Product Guide

Viva Energy Product Guide

Produced by Viva Energy Australia Pty Ltd
720 Bourke St Docklands, VIC 3008

For more detailed and up-to-date information please refer to the Technical Data Sheets (TDS) available at shell.com.au or vivaenergy.com.au/services/tds

Viva Energy Technical Solutions Team:
technical-au@vivaenergy.com.au
1300 134 205

Sales Enquiries: 13 16 18

Orders Team: 13 16 18

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Engine Oils

Designed to meet your needs, whatever your engine challenges.

Applications

1.0 Shell Helix Passenger Car Engine Oils

2.0 Shell Rimula Heavy Duty Diesel Engine Oils

3.0 Shell Advance Motorcycle Oils

Engine Oils

Applications

3.0 Shell Advance Motorcycle Oils (cont)

4.0 Shell Marine Oils

5.0 Other Shell Engine Oils

Product Specifications

Shell Helix Ultra SN 0W-20

Fully synthetic motor oil - The next oil generation for oil cleanliness

Shell Helix Ultra SN uses its latest active cleansing technology to help petrol engines operate to their full potential by keeping them as close as possible to factory clean. It provides unsurpassed sludge and wear protection.

Performance, Features & Benefits:

- Shell's latest active cleansing technology
- Meets ILSAC GF-5 fuel economy standards
- Unsurpassed sludge protection
- Unsurpassed wear protection
- Active clean-up
- Exceptional low-temperature performance
- Excellent resistance to oil degradation
- Low-evaporation formulation.

Specifications, Approvals & Recommendations:

- API SN
- ILSAC GF-5
- ACEA A1/B1
- Chrysler MS-6395.

Main Applications:

- Shell Helix Ultra SN's fully synthetic formulation offers Shell's maximum protection in very hot and extremely cold climates, and severe driving conditions.

Shell Helix Ultra ECT C2/C3 0W-30

Fully synthetic motor oil - Shell's ultimate protection for vehicle emission systems

Shell Helix Ultra ECT C2/C3 features its most advanced emissions-compatible technology that helps to keep diesel particulate filters clean to help maintain engine performance. It helps to reduce engine friction to provide enhanced fuel economy.

Performance, Features & Benefits:

- Shell's most advanced emissions-compatible technology for low SAPS oil
- Shell's ultimate active cleansing technology
- Unsurpassed sludge protection
- Superior wear protection
- Developed with special antioxidants
- Low viscosity and low friction
- Exceptional low-temperature performance
- Superior piston cleanliness
- Superior corrosion protection
- Superior intake valve cleanliness
- High resistance to mechanical stress
- Low evaporation formulation.

Main Applications:

- Shell Helix Ultra ECT C2/C3's fully synthetic formulation uses Shell's most advanced emissions-compatible technology to help petrol engine exhaust catalysts and keep diesel particulate filters clean and protects it from ash build-up that can block the exhaust system and lead to reduced engine performance.
- Shell Helix Ultra ECT C2/C3 can be used for modern petrol engines, diesel engines with particulate filters and gas engines.

Specifications, Approvals & Recommendations:

- ACEA C2/C3
- API SN
- VW 504.00/507.00
- MB-Approval 229.52, 229.51, 229.31
- Fiat 9.55535-GS1, 9.55535-DS1 (meets requirements)
- Porsche C30.

Shell Helix Ultra ECT C3 5W-30

Fully synthetic motor oil - Shell's ultimate protection for vehicle emission systems

Shell Helix Ultra ECT C3 features its most advanced emissions-compatible technology that helps to keep diesel particulate filters clean to help maintain engine performance. It helps to reduce engine friction to provide enhanced fuel economy.

Performance, Features & Benefits:

- Shell's most advanced emissions-compatible technology for low SAPS oil
- Unsurpassed sludge protection
- Low viscosity and low friction
- Exceptional low-temperature performance
- High resistance to mechanical stress
- Low evaporation formulation
- Shell's ultimate active cleansing technology
- Developed with special antioxidants.

Main Applications:

- Shell Helix Ultra ECT C3's fully synthetic formulation uses Shell's most advanced emissions-compatible technology to help petrol engine exhaust catalysts and keep diesel particulate filters clean and protects it from ash build-up that can block the exhaust system and lead to reduced engine performance.
- Shell Helix Ultra ECT can be used for modern petrol engines, diesel engines with particulate filters and gas engines.

Specifications, Approvals & Recommendations:

- ACEA C3
- API SN
- MB-Approval 229.51, 229.31
- BMW LL-04
- GM dexos2™ - Licence number GB2C0710014.
- Chrysler MS-11106

Shell Helix Ultra 5W-40

Fully synthetic motor oil - Shell's most advanced formulation for high performance engines

Shell Helix Ultra uses unique active cleansing technology to help high-performance engines operate at maximum efficiency by helping to protect them from power-robbing deposits and wear. It is suitable for even the longest OEM-recommended drain intervals.

Performance, Features & Benefits:

- Shell's ultimate active cleansing technology
- Superior wear and corrosion protection
- Active clean-up
- Superior resistance to oil degradation
- Low-evaporation formulation
- Exceptional low-temperature performance
- Approved by car manufacturers
- Long life
- Multi-fuel capability.

Main Applications:

- Shell Helix Ultra's fully synthetic formulation offers Shell's maximum protection in very hot and extremely cold climates, and severe driving conditions. Shell Helix Ultra can be used for modern petrol engines, diesel engines (without particulate filters) and gas engines, and it is also suitable for use with biodiesel and petrol/ethanol blends.

Specifications, Approvals & Recommendations:

- API: SN/CF
- ACEA: A3/B3, A3/B4
- BMW: LL-01
- MB-Approval: 229.5, 226.5
- VW: 502.00/505.00
- Porsche: A40
- Renault: RN 0700, RN 0710
- PSA: B71 2296
- Ferrari
- Fiat 9.55535.Z2 & Fiat 9.55535-GH2 (meets the requirements of)
- Chrysler MS 10725
- Chrysler MS 12991.

Shell Helix Ultra SN 5W-20

Fully synthetic motor oil - The next oil generation for oil cleanliness

Shell Helix Ultra SN uses its latest active cleansing technology to help petrol engines operate to their full potential by keeping them as close as possible to factory clean. It provides unsurpassed sludge and wear protection.

Performance, Features & Benefits:

- Long term oxidation stability.
- Shell's ultimate active cleansing technology
- Fuel economy
- Protection against wear
- Easy start-up.

Main Applications:

- Shell Helix Ultra SN's fully synthetic formulation offers Shell's maximum protection in very hot and extremely cold climates, and severe driving conditions.
- Suitable for modern petrol engines fitted with catalytic converters and blow-by-gas recirculation.

Specifications, Approvals & Recommendations:

- API SN
- ILSAC GF-5
- ACEA A1/B1
- Chrysler 6395
- GM 6094M
- Ford WSS M2C945-A, M2C930-A.

Shell Helix Ultra Racing 10W-60

Fully synthetic motor oil - Shell's most advanced formulation for high performance engines

Designed to meet the demanding requirements of particular high-performance engines, including those requiring API SN or ACEA A3/B4.

Performance, Features & Benefits:

- Shell's ultimate active cleansing technology
- Superior wear and corrosion protection
- Unsurpassed sludge protection
- Used by Ferrari
- Superior resistance to oil degradation
- Low-evaporation formulation
- Multi-fuel capability.

Specifications, Approvals & Recommendations:

- API SN/CF
- ACEA A3/B3, A3/B4
- Ferrari.

Main Applications:

- Extreme-performance engines and racing conditions can cause excessive wear of bearings and other engine components. Shell Helix Ultra Racing has been formulated with a higher viscosity to provide exceptional bearing protection under extreme-performance and racing conditions compared with lower viscosity oils.
- Shell Helix Ultra Racing is designed for modified engines and racing engines using petrol, diesel and gas, and it is also suitable for biodiesel and petrol/ethanol blends.

Shell Helix Ultra Professional AF 5W-30

Fully Synthetic Motor Oil - Tailored to meet engine manufacturer special requirements

Designed to meet the demanding requirements of particular high-performance engines, including Ford and those requiring ACEA A5/B5.

Performance, Features & Benefits:

- Fuel efficiency
- Engine wear and durability
- Engine cleanliness
- Soot control.

Main Applications:

- Shell Helix Ultra Professional AF 5W-30 for petrol and diesel engines is approved against the technically challenging in-house Ford engine oil specification WSS-M2C913-C & WSS-M2C913-D.
- Meets the technical requirements of the Jaguar Land Rover engine oil specification STJLR.03.5003.

Specifications, Approvals & Recommendations:

- API SL
- ACEA A5/B5
- Ford WSS-M2C913-C & WSS-M2C913-D
- Jaguar Land Rover STJLR.03.5003 (meets requirements).

Shell Helix Ultra Professional AG 5W-30

Fully Synthetic Motor Oil - Tailored to meet engine manufacturer special requirements

Designed to meet the demanding requirements of particular high-performance engines, including General Motors and those requiring API SN or ACEA C3.

Performance, Features & Benefits:

- Fuel efficiency
- General Motors specific in-house tests
- Engine wear and durability
- Engine cleanliness
- Soot control.

Specifications, Approvals & Recommendations:

- API SN
- ACEA C3
- GM dexos2™ license GB2B0611014.

Main Applications:

- Shell Helix Ultra Professional AG 5W-30 for petrol and diesel engines is approved against the technically challenging General Motors engine oil specification GMW16177 (dexos2™). It is formulated specifically for the dexos2™ specification, which combines parts of API SN, ACEA C3 and in-house General Motors petrol and diesel engine tests, for use as a global service fill oil.

Shell Helix Ultra Professional AF-L 5W-30

Fully Synthetic Motor Oil - Tailored to meet engine manufacturer special requirements

Designed to meet the demanding requirements of particular high-performance engines, including Ford, Jaguar and Mazda, and those requiring ACEA C1.

Performance, Features & Benefits:

- Fuel efficiency
- Engine wear and durability
- Engine cleanliness
- Soot control.

Specifications, Approvals & Recommendations:

- ACEA C1
- Ford WSS-M2C934-B
- Jaguar Land Rover STJLR.03.5005.

Main Applications:

- Shell Helix Ultra Professional AF-L for diesel engines is approved against the technically challenging in-house Ford engine oil specification WSS-M2C934-B. Also approved against the demanding technical requirements of the Jaguar Land Rover engine oil specification STJLR.03.5005.

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Shell Helix Ultra Professional AP-L 5W-30

Fully Synthetic Motor Oil - Tailored to meet engine manufacturer special requirements

Designed to meet the demanding requirements of particular high-performance engines, including Peugeot, Citroen and Fiat, and those requiring ACEA C2.

Performance, Features & Benefits:

- Fuel efficiency
- Fiat specific in-house tests
- Peugeot specific in-house tests
- Engine wear and durability
- Engine cleanliness
- Soot control.

Specifications, Approvals & Recommendations:

- ACEA C2
- PSA B71 2290
- Fiat 9.55535-S1 (meets requirements)
- Iveco 18-1811 Sp-S1 (meets requirements).

Main Applications:

- Shell Helix Ultra Professional AP-L 5W-30 for petrol and diesel engines meets the technically challenging Fiat 9.55535-S1 and Peugeot B71 2290 in house specifications.
- It is formulated specifically for use in modern Fiat and Peugeot diesel engines using diesel particulate filter technology.

Shell Helix HX8 Synthetic 5W-30

Fully synthetic motor oil - Relentless performance, cleansing and protection

Shell Helix HX8 Synthetic works hard to help keep modern engines clean and protected. It helps to prevent the formation of harmful deposits that can lead to performance loss and helps to reduce engine friction to provide enhanced fuel economy.

Performance, Features & Benefits:

- Shell's superior active cleansing technology
- Active clean-up
- Excellent wear protection
- Long-term resistance to oil degradation
- Low viscosity and low friction
- Enhanced low-temperature performance
- Low-evaporation formulation
- Multi-fuel capability.

Specifications, Approvals & Recommendations:

- API SN/CF
- ACEA A3/B3, A3/B4
- VW 502.00/505.00
- MB-Approval 229.3
- Renault RN 0700, 0710.

Main Applications:

- Shell Helix HX8 Synthetic's formulation can be used in engines in a wide variety of modern vehicles that face these demanding driving conditions, and should be recommended for customers who want to keep the same oil-drain interval and are carrying heavy loads, operating in extreme climates or driving in congested stop-start city traffic.
- Shell Helix HX8 Synthetic can be used for petrol engines, diesel engines (without particulate filters) and gas engines, and is also suitable for use with biodiesel and petrol/ethanol blends.

Shell Helix HX7 ECT 5W-30

Synthetic technology motor oil - Protection for vehicle emission systems

Shell Helix HX7 ECT features emissions-compatible technology that helps to keep diesel particulate filters clean to help maintain engine performance. It helps to minimise the formation of sludge and deposits.

Performance, Features & Benefits:

- Synthetic Technology
- Shell's emissions-compatible technology (ECT) oil
- Shell's superior active cleansing technology
- Excellent sludge protection
- Developed with special antioxidants
- Low viscosity and low friction
- Low-temperature performance
- Resistance to mechanical stress.

Specifications, Approvals & Recommendations:

- API SN
- ACEA C3
- MB-Approval 229.31
- Chrysler MS 11106.

Main Applications:

- Shell Helix HX7 ECT's synthetic technology formulation uses Shell's emissions-compatible technology to help petrol engine exhaust catalysts and keep diesel particulate filters clean. It protects it from ash build-up that can block the exhaust system and lead to reduced engine performance.
- Shell Helix HX7 ECT can be used for modern petrol engines, diesel engines with particulate filters and gas engines.

Shell Helix
HX7 SN 10W-30

Synthetic technology motor oil - Long term protection against sludge

Shell Helix HX7 SN helps to keep petrol engines clean and operating efficiently. It provides excellent sludge protection and helps to prevent engine wear. It is suitable for use in a wide variety of vehicles driven in demanding traffic conditions.

Performance, Features & Benefits:

- Synthetic Technology
- Shell's unique active cleansing technology
- Active clean-up
- Premium sludge protection
- Superior wear protection
- Meets ILSAC GF-5 fuel economy standards.

Specifications, Approvals & Recommendations:

- API SN
- ILSAC GF-5.

Main Applications:

- Everyday motorway or city driving can mean severe conditions for engine oil. Shell Helix HX7 SN helps to provide protection for modern vehicles in demanding daily traffic conditions. Suitable for petrol, gas or ethanol containing fuels.

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Shell Helix HX7 10W-40

Cleans and protects for extra responsiveness

Shell Helix HX7 has been formulated with special active cleansing technology. It works harder to protect than conventional motor oils by continuously helping to prevent dirt and sludge build-up for better responsiveness right up to the next scheduled oil change.

Performance, Features & Benefits:

- Synthetic Technology
- Shell's unique active cleansing technology
- Active clean-up
- Excellent wear protection
- Excellent resistance to degradation
- Low-temperature performance
- Low-evaporation formulation
- Multi-fuel capability.

Specifications, Approvals & Recommendations:

- API SN/CF
- ACEA A3/B3, A3/B4
- JASO SG+
- MB Approval 229.3
- VW 502.00/505.00
- Renault RN 0700, 0710
- Fiat 9.55535-G2 (meets requirements).

Main Applications:

- Shell Helix HX7 helps to prolong the engine life of modern vehicles in demanding daily traffic conditions by protecting against wear. Shell Helix HX7 can be used for petrol engines, diesel engines (without particulate filters) and gas engines, and it is also suitable for use with biodiesel and petrol/ethanol blends.

Shell Helix HX7 High Mileage 15W-50

Synthetic technology motor oil - Helps to stop the ageing process in your engine.

Shell Helix HX7 High Mileage helps protect high mileage engines from the formation of sludge and engine deposits. It contains anti-wear additives to help slow down wear.

Performance, Features & Benefits:

- Unique active cleansing technology
- Active clean-up of sludge[2]
- Enhanced with 20% zinc anti-wear agents[1]
- Resistance to oil degradation
- High viscosity.

Specifications, Approvals & Recommendations:

- API SN/CF
- ACEA A3/B4.

Main Applications:

- Everyday motorway or city driving can mean severe conditions for engine oil. Shell Helix HX7 High Mileage helps to prolong the engine life of modern vehicles in demanding daily traffic conditions.
- Suitable for petrol, diesel, gas or ethanol containing fuels.

1 Average of 20% zinc, as compared with Shell Helix HX7 motor oils

2 Based on severe sludge clean-up test

Shell Helix HX5 15W-40

Premium multi-grade motor oil - Helps to remove sludge from dirty engines

Shell Helix HX5 is designed to help provide consistent engine performance. It works hard to help protect against engine sludge and reduce wear. It is suitable for a wide variety of vehicles for everyday driving conditions.

Performance, Features & Benefits:

- Active cleansing technology
- Active clean-up
- Effective wear protection
- Resistance to oil degradation
- Multi-fuel capability.

Main Applications:

- Shell Helix HX5's premium multigrade formulation helps to provide protection in everyday daily driving conditions. Shell Helix HX5 can be used for petrol, diesel and gas engines, and it is also suitable for biodiesel and petrol/ethanol blends.

Specifications, Approvals & Recommendations:

- API SN/CF
- ACEA A3/B3.

Shell Helix HX3 20W-50

Multi-grade motor oil - Reliable Protection for older engines

Shell Helix HX3 helps provide reliable protection for older, high-mileage engines. It helps to prevent sludge and reduce wear. it is suitable for use where API SL/CF is recommended.

Performance, Features & Benefits:

- Active cleansing technology
- Anti-wear additive
- High viscosity
- Multi-fuel capability.

Main Applications:

- Shell Helix HX3's multigrade formulation helps to protect the engines of older, higher-mileage vehicles in everyday driving conditions. Shell Helix HX3 can be used for petrol, diesel and gas engines.

Specifications, Approvals & Recommendations:

- API SL/CF.

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Shell Rimula
R6 LM 10W-40

Fully Synthetic Heavy Duty Diesel Engine Oil

Shell Rimula R6 LM oil features “Low-SAPS” additive technology and unique anti-wear system. Protective power is enhanced with synthetic technology, resulting in maintenance saving long drain capability, exceptional wear and cleanliness performance.

Performance, Features & Benefits:

- Maintenance saving
- Emissions system compatibility
- Low wear, low deposits
- Fuel economy.

Main Applications:

- On-highway heavy duty applications
- Low emission engine use
- CNG engine oil performance.

Specifications, Approvals & Recommendations:

- ACEA E6, E9
- API CJ-4, CI-4, CH-4, CG-4, CF-4, CF
- Caterpillar ECF-3
- Cummins CES 20081
- DAF Meets ACEA E6
- Deutz DQC IV-10 LA
- IVECO NG2 (Meets Requirements)
- JASO DH-2
- MACK EO-O Premium Plus
- MAN M3477, M3271-1
- MB-Approval 228.51
- MTU Category 3.1
- Renault Trucks RLD-3
- Scania Low Ash
- Volvo VDS-4.

Shell Rimula
R6 MS 10W-40

Fully Synthetic Heavy Duty Diesel Engine Oil

Shell Rimula R6 MS fully synthetic oils deliver highly responsive protection, maintenance saving long drain performance, protection against soot, wear, deposits and fuel economy. Suitable for most Euro 4, 5 engines and Euro 6 Scania engines.

Performance, Features & Benefits:

- Maintenance saving
- Exceptional piston cleanliness
- Low wear - long engine life
- Fuel economy.

Main Applications:

- On-highway heavy duty applications
- Low emission engine use.

Specifications, Approvals & Recommendations:

- ACEA E7, E4
- Deutz DQC IV-10
- IVECO T3 E4 (Meets IVECO Specification)
- MAN M3277
- MB-Approval 228.5
- MTU Category 3.
- Renault Trucks RXD
- Scania LDF-2 / LDF-3
- Volvo VDS-3.

Shell Rimula
R5 LE 10W-40

Synthetic Technology Heavy Duty Diesel Engine Oil

Shell Rimula R5 LE oils feature “Low-SAPS” additive technology while delivering energy savings. Protective power is enhanced through the use of synthetic base oil technology to deliver fuel economy performance with no compromise in durability.

Performance, Features & Benefits:

- Emissions system capability
- Fuel economy capability
- Improved engine cleanliness.

Main Applications:

- European heavy duty engines
- Low emission engine use.

Specifications, Approvals & Recommendations:

- API CJ-4, CI-4 Plus, CI-4, CH-4, CG-4
- ACEA E9, E7
- JASO DH-2
- IVECO TLS E9 (Meets Requirements)
- Caterpillar ECF-3, ECF-2
- Cummins CES 20081
- Mack EO-O Premium Plus
- MTU Category 2.1
- MAN M 3575
- MB Approval 228.31
- DDC 93K218
- Renault VI RLD-3
- Volvo VDS-4
- CNH MAT 3521 (Meets Specification).

Shell Rimula R4 L 15W-40

Heavy Duty Diesel Engine Oil

Shell Rimula R4 L oils use “Low-SAPS” additive technology to protect low emission engines under severe conditions. It delivers improvements in wear and deposit control, resistance to breakdown under high temperatures compared to previous oil.

Performance, Features & Benefits:

- Simplify inventory needs
- Emissions system capability
- Lower operating costs
- Outstanding wear protection.

Main Applications:

- Severe duty heavy duty diesel engines
- Off-highway applications.

Specifications, Approvals & Recommendations:

- API CJ-4, CI-4+, CI-4, CH-4, CG-4, CF-4, CF.
- ACEA E9, E7.
- Caterpillar ECF-2, ECF-3
- Cummins CES 20081, 77, 72, 71
- DDC 93K218
- Deutz DQC III-10 LA
- MACK EO-O Premuim Plus
- MAN 3575
- MB Approval 228.31
- MTU Category 2.1
- Renault Trucks RLD-3
- JASO DH-2
- IVECO T2 E7 (Meets Specification)
- Volvo VDS-4, VDS-3
- CNH MAT 3521, 3522 (Meets Specification).

Shell Rimula
R4 X 15W-40

Multigrade Heavy Duty Engine Oil

Shell Rimula R4 X is designed to provide Triple Protection to improve engine and oil durability. It helps to lower maintenance and increase reliability of vehicles. It's suitable for most heavy-duty diesel engines for on and off highway applications.

Performance, Features & Benefits:

- Acid and corrosion control
- Reduced engine wear
- Deposit control.

Main Applications:

- Severe duty heavy duty diesel engines
- High technology low emission engines.

Specifications, Approvals & Recommendations:

- API CI-4, CH-4, CG-4, CF-4, CF, SL
- ACEA E7, E5, E3
- Global DHD-1
- Caterpillar ECF-2, ECF-1-A
- Cummins CES 20078,77,76,75,72,71
- DDC 93K215
- Deutz DQC III-10
- IVECO T1 (Meets Requirements)
- JASO DH-1
- Mack EO-M+, EO-M
- MAN M3275-1
- MB Approval 228.3
- MTU Category 2
- Renault Trucks RLD-2
- Volvo VDS-3
- CNH MAT 3520 (Meets Specification).

Shell Rimula
R4 MV 15W-40

Heavy Duty Diesel Engine Oil

Shell Rimula R4 MV oils use “Low-SAPS” additive technology to protect low emission engines under severe operating conditions like mining, construction and quarrying.

Performance, Features & Benefits:

- Hardworking protection
- Longer oil life.

Main Applications:

- Off-highway applications
- Emission controlled engines.

Specifications, Approvals & Recommendations:

- API CJ-4
- Caterpillar ECF2/ECF-3
- Cummins CES 20081
- MTU Category 2.1
- DEUTZ DQC III LA
- JASO DH-2.

Shell Rimula
R3 MV 15W-40

Heavy Duty Diesel Engine Oil

Shell Rimula R3 MV oils provide low wear for long engine life, low deposit formation to maintain engine performance and resist breakdown by heat for continuous protection in demanding applications in mining, construction and quarrying.

Performance, Features & Benefits:

- Hard working protection
- Longer oil life.

Main Applications:

- Off-highway applications
- Emission controlled engines.

Specifications, Approvals & Recommendations:

- Caterpillar ECF-2, ECF-1A
- Cummins CES 20071, 72, 78
- DDC 93K215
- Mack EO-M+
- MTU Category 2
- API CI-4, CH-4, CG-4, CF-4, CF
- ACEA E3.

Shell Rimula R3+ 40

Heavy Duty Diesel Engine Oil

Shell Rimula R3 oil adapts to your driving needs to provide extra protection and keep pistons and other engine parts clean. It provides protection against wear for long engine life and protection against deposits for efficient engine performance.

Performance, Features & Benefits:

- Equipment manufacturer acceptance
- High standard of piston cleanliness
- Low engine wear and long component life.

Main Applications:

- Dedicated diesel engine oil performance
- Construction industry application
- Stationary equipment.

Specifications, Approvals & Recommendations:

- MAN 270
- MB Approval 228.0
- MTU Category 1
- API CF
- ACEA E2.

Compatibility & Miscibility:

- Shell Rimula R3 oils should not be used in Detroit Diesel two- stroke engines. An SAE 40 oil meeting the API CF-II Specification and having a sulphated ash content of less than 1% should be used. For these applications, Rotella DD+40 should be used.

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Shell Rimula R3+ 30

Heavy Duty Diesel Engine Oil

Shell Rimula R3 oil adapts to your driving needs to provide extra protection and keep pistons and other engine parts clean. It provides protection against wear for long engine life and protection against deposits for efficient engine performance.

Performance, Features & Benefits:

- Equipment manufacturer acceptance
- High standard of piston cleanliness
- Low engine wear and long component life.

Main Applications:

- Dedicated diesel engine oil performance
- Construction industry application
- Stationary equipment.

Specifications, Approvals & Recommendations:

- MAN 270
- MB Approval 228.0
- MTU Category 1
- API CF.

Compatibility & Miscibility:

- Shell Rimula R3 oils should not be used in Detroit Diesel two- stroke engines. An SAE 40 oil meeting the API CF-II Specification and having a sulphated ash content of less than 1% should be used. For these applications Rotella DD+40 should be used.

Shell Advance 4T Ultra 10W-40

Designed to meet challenges

100% Synthetic 4 Stroke Motorcycle engine oil

Shell Advance 4T Ultra with PurePlus Technology, is our top-tier 4 stroke motorcycle engine oil. Shell patented PurePlus Technology converts pure natural gas into clear base oil with virtually none of the impurities of crude oil in the starting point for most conventional and synthetic motorcycle oils.

The 100% synthetic Shell Advance 4T Ultra is made from this pure and clear base oil, combined with a motorcycle-specific additive pack with unique Active Cleansing Technology. It helps to cleanse and keep the engine cleaner. A clean motorcycle engine helps provide better engine efficiency, performance and protection. Shell Advance Ultra has been race proven and endorsed by leading motorcycle manufacturers. The product exceeds the requirements of all motorcycle manufacturers.

Performance, Features & Benefits:

Technology:

- Shell PurePlus Technology converts natural gas into a clear base oil with virtually none of the impurities of crude oil
- Shell Active Cleansing Technology helps prevent dirt particles sticking together to form deposits
- Keeps engine cleaner
- More efficient power delivery & enhanced responsiveness
- Reduces engine noise & vibration
- Protects & prolongs engine life.

Main Applications:

- High-performance air and water-cooled four stroke motorcycle engines, including race-tuned and ones with integral gearboxes and wet clutches.

Specifications, Approvals & Recommendations:

- API SN
- JASO MA2
- and are endorsed by Ducati.

Shell Helix Range Product Specification

	FULLY SYNTHETIC											SEMI SYNTHETIC				MINERAL	
SPECIFICATIONS	**Ultra SN0W-20**	**Ultra ECT C2/ C3 0W-30**	**Ultra ECT C3 5W-30**	**Ultra 5W-40**	**Ultra SN 5W-20**	**Ultra Prof AF 5W-30**	**Ultra Prof AG 5W-30**	**Ultra Prof AF-L 5W-30**	**Ultra AP-L 5W-30**	**Ultra Racing 10W-60**	**HX8 Synthetic 5W-30**	**HX7 ECT 5W-30**	**HX7 SN 10W-30** (Formerly HX7 AJ)	**HX7 10W-40**	**HX7 HM 15W-50** (Formerly HX7K)	**HX5 15W-40**	**HX3 20W-50**
SAE	0W-20	0W-30	5W-30	5W-40	5W-20	5W-30	5W-30	5W-30	5W-30	10W-60	5W-30	5W-30	10W-30	10W-40	15W-50	15W-40	20W-50
PurePlus	YES	YES	YES	YES	YES		YES			YES							
API	SN	SN	SN	SN/CF	SN		SN			SN/CF	SN/CF	SN	SN	SN/CF	SN/CF	SN/CF	SL/CF
ACEA	A1/B1	C2/C3	C3	A3/B3, A3/B4	A1/B1	A5/B5	C3	C1	C2	A3/B3, A3/B4	A3/B3, A3/B4	C3		A3/B3, A3/B4	A3/B4	A3/B3	
ILSAC	GF-5				GF-5								GF-5				
JASO														SG+			
BMW			LL-04	LL-01													
Mercedes-Benz		MB 229.51, 229.52, 229.31	MB 229.51, MB 229.31	229.5, 226.5							229.3	229.31		229.3			
Volkswagen		VW 504.00/507.00		502.00/ 505.00							502.00/ 505.00			502.00/ 505.00			
Chrysler	MS-6395		MS-11106	MS-10725, MS-12991	MS-6395							MS 11106					
Ford					WSS-M2C945 A, WSS-M2C930-A	WSS-M2C913-C, WSS-M2C913-D		WSS-M2C934-B									
Ferrari				APPROVED						APPROVED							
GM			dexos 2		6094M		dexos 2										
Renault				RN 0700, 0710							RN 0700, 0710			RN 0700, 0710			
Porsche		C30		A40													
Iveco									18-1811 Sp-S1*								
Fiat		9.55535-GS1 9.55535DS1*		9.55535.GH2* 9.55535.Z2					9.55535 S1*					9.55535-G2*			
PSA				B71 2296					B71 2290								
Jaguar						STJLR.03.5003		STJLR.03.5005									
Land Rover						STJLR.03.5003		STJLR.03.5005									
Pack Sizes	**5L, 20L, 209L**	**5L, 209L**	**1L, 5L, 209L, Bulk**	**1L, 5L, 20L, 209L, OTC**	**209L**	**5L, 20L, 209L**	**5L, 209L**	**209L**	**209L**	**209L**	**1L, 5L, 20L, 209L**	**1L, 5L, 20L, 209L**	**5L, 20L, 209L, Bulk**	**1L, 5L ,20L, 209L, Bulk**	**1L, 5L, 209L**	**1L, 5L, 20L, 209L**	**1L, 5L, 209L**

Valid at 1/8/2016. *Meets requirements of the manufacturer.

Shell Rimula Range Product Specification

	FULLY SYNTHETIC		SEMI SYNTHETIC	MINERAL					
SPECIFICATIONS	**Shell Rimula R6 LM 1 0W -40**	**Shell Rimula R6 MS 10W-40**	**Shell Rimula R5 LE 10W-40**	**Shell Rimula R4 L 15W-40**	**Shell Rimula R4 X 1 5W -40**	**Shell Rimula R3 MV 1 5W -40**	**Shell Rimula R3 +4**	**Shell Rimula R3 +30**	**Rotella DD+ 40**
GENERAL									
DYNAMIC PROTECTION PLUS TECHNOLOGY	YES	YES	YES						
API	CJ-4, CI-4, CH-4, CG-4, CF-4, CF		CJ-4, CI-4+, CI-4, C H-4, CG-4	CJ-4, CI-4+, CI-4, CH-4, CG-4, C F-4, CF	CI-4, C H-4, CG-4, CF-4, CF, SL	CI-4, C H-4, CG-4, CF-4, CF	CF	CF	CF-II
ACEA	E6, E9	E7, E4	E9, E7	E9, E7	E7, E5, E3	E3	E2		
Global					DHD-1				
JASO	DH-2		DH-2	DH-2	DH-1				
US									
Case New Holland			CNH MA T 3521*	CNH MA T 3251*, 3522*	CNH MA T 3250*				
Caterpillar	ECF-3		ECF-3, ECF-2	ECF-2, ECF-3	ECF-2, ECF-1A	ECF-1A, ECF-2			
Cummins CES	2008 1		2008 1	2008 1, 77, 72, 7 1	20078, 7 7, 76, 75, 72, 7 1	20078, 72, 7 1			
Detroit Diesel Corporation			93K218	93K218	93K215	93K215			7SE 2 70 88 10
Mack	EO-O Premium Plus		EO-O Premium Plus	EO-O Premium Plus	EO-M Plus, EO-M	EO-M Plus			
EURO									
DAF	Meets ACEA E6								
Deutz	DQC IV-10 LA	DQC IV-10		DQC III-10 LA	DQC III-10				
Iveco	NG2#	T3 E4*	TLS E9#	T2 E7*	T1#				
MAN	M3477, M32 71-1	M3277	M3575	M3575	M3275-1		M270	M270	
Mercedes-Benz	228. 51	228.5	228. 31	228. 31	228.3		228.0	228.0	
MTU	Category 3.1	Category 3	Category 2.1	Category 2.1	Category 2	Category 2	Category 1	Category 1	
Renault	RLD-3	RXD	RLD-3	RLD-3	RLD-2				
Scania	Low Ash	LDF-2, LDF-3							
Volvo	VDS-4	VDS-3	VDS-4	VDS-4,	VDS-3	VDS-3			
Pack Sizes	**20L, 209L, OTC**	**20L, 209L**	**20L, 209L, OTC**	**5L, 1 0L, 20L, 209L, BULK, OTC**	**1L, 5L, 20L, 209L, OTC**	**20L, 209L, BULK, OTC**	**20L, 209L**	**20L, 209L**	**20L, 209L, OTC**

Valid at 1/1/2017. *Meets Specification #Meets Manufacturer Requirements IBC = Intermediate Bulk Container - 1000L.

Transmission & Differential Oils

Applications

6.0 Automatic Transmission Oils

7.0 Manual Transmission Oils

8.0 Off-Road or Mobile Equipment Transmission Oils

9.0 Agriculture and Specialty Transmission Oils

Shell Lubricants
Macro Distributor

Shell Spirax S3 ATF MD3

High Performance Automatic Transmission Fluid in many applications

Shell Spirax S3 ATF MD3 is a premium quality automatic transmission fluid based on high viscosity index mineral oils and carefully selected additives. It is blended to meet the stringent requirements of leading automotive transmission manufacturers.

Performance, Features & Benefits:

- Friction modified
- Exceptionally high oxidation resistance
- Excellent shear-stability
- Dependable anti-wear and gear protection
- Low temperature performance.

Main Applications:

- Passenger car automatic transmission
- Heavy duty automotive transmissions
- Power steering units
- Certain hydraulic applications calling for oils meeting ISO VG, 32-46-68 viscosity requirements.

Specifications, Approvals & Recommendations:

- Suitable for use in vehicles where GM Dexron ® III, Ford Mercon ® or Allison C-4 fluids are required. Do not use where GM Dexron ® VI or Ford Mercon ® V/Mercon® SP/Mercon ® LV fluids are specified
- Dexron® is a trademark in many countries belonging to General Motors Company. Mercon® is a trademark in many countries belonging to Ford Motor Company.

Shell Spirax S4 ATF HDX

Advanced Synthetic Technology Heavy Duty Automotive Transmission Fluid

Shell Spirax S4 ATF HDX is a superior quality automatic transmission fluid suitable for a wide range of heavy duty automotive transport and passenger car transmissions. Based on synthetic technology base fluid, Shell Spirax S4 ATF HDX is the ultimate performance automatic transmission fluid allowing extended drain intervals even under the most severe conditions

Performance, Features & Benefits:

- Synthetic base oil technology
- Excellent shift feeling
- Extremely low temperature fluidity
- Shear stability
- Wear protection
- Maximum oil drain interval potential
- High temperature oxidation stability.

Main Applications:

- Automotive automatic transmissions
- Automotive hydraulic systems
- Power steering
- Certain manual transmissions.

Specifications, Approvals & Recommendations:

- ZF TE-ML 03D, 04D, 14B, 16L, 17C
- MAN 339 Typ Z2, V2
- Mercedes-Benz 236.9
- Voith 55.6336.XX (standard drain intervals up to 120,000km)
- Volvo 97341:39

Meets requirements of:

- Ford Mercon ®
- General Motors Dexrom ® IIIG
- Allison C4

Shell Lubricants
Macro Distributor

Shell Spirax S5 ATF X

Premium, Synthetic Technology Multi-Vehicle Automatic Transmission Fluid

Shell Spirax S5 ATF X is a premium performance, synthetic technology fluid designed to meet the needs of multiple vehicle types for service fill in automatic transmission service. Shell Spirax S5 ATF X meets the needs of many Asian and North American designed automatic transmissions.

Performance, Features & Benefits:

Friction modified:

- Provides consistent, reliable, smooth and trouble free operation of automotive transmission systems.

Exceptionally high oxidation resistance:

- Resistant to oil degradation and keeps automatic transmissions clean.

Excellent shear-stability:

- A special 'VI' improver minimises the changes in viscosity with operating temperature.

Dependable anti-wear and gear protection:

- Long component life.

Low temperature performance:

- Excellent oil fluidity at low temperatures.

Synthetic base fluids:

- Excellent fluid life in the most demanding applications.

Main Applications:

- Passenger car automatic transmissions
- Heavy duty automatic transmissions
- Power steering units
- Hydraulic systems requiring this grade of fluid.

Specifications, Approvals & Recommendations:

Suitable for use in applications which require:

- Allison C-4
- Aisin JWS 3309 (all applications)
- JASO 1-A, 2A-02
- Ford Mercon® V, Mercon ®
- General Motors Dexron®, Dexron® II, Dexron® III
- Toyota T III, T IV

For a full listing of equipment approvals and recommendations, please consult the Technical Helpdesk.

Shell Spirax S6 ATF A295

Synthetic Extended Drain Heavy Duty Automatic Transmission Fluid

Shell Spirax S6 ATF A295 Oil is a fully synthetic, heavy-duty automatic transmission fluid which is specifically designed and approved for use in transmissions requiring Allison TES-295 fluids. Shell Spirax S6 ATF A295 is approved for extended service intervals and remains stable even under severe operating conditions.

Performance, Features & Benefits:

- Long enhanced protection – long equipment life
- Long fluid life – maintenance saving
- Enhanced efficiency.

Main Applications:

- Allison Medium/Heavy Duty Automatic Transmissions

Spirax S6 ATF A295 is recommended for use in transmissions found in the following applications:

- Municipal fleets
- Vans, school buses
- Buses and coahes
- Emergency vehicles
- Commercial vehicles and trucks
- Motor-homes
- Heavy duty pickup trucks
- Spirax S6 ATF A295 can also be used in some ZF and Voith heavy duty transmissions as well as those previously serviceable by Dexron® III and Mercon® Fluids, and is particularly suited to mixed fleet operations.

Specifications, Approvals & Recommendations:

Approved:

- Allison TES-295 AN-121008
- Allison TES-468 AN-121008

Suitable for use in applications calling for:

- Former Dexron-III applications
- Voith DIWA transmissions
- ZF TE-ML, 14A, 14B, 14C
- MAN 339 Z3
- MB 236.91
- Caterpillar AT-1

Shell Lubricants
Macro Distributor

Shell Spirax S6 ATF ZM

Premium Heavy Duty Transmission Oil for ZF Long Drain

Shell Spirax S6 ATF ZM Oil is a fully synthetic, premium quality, heavy-duty automatic transmission fluid specifically designed in partnership with ZF as a lubricant for the newest generation of ZF-Ecomat- and ZF-Ecolife transmissions. Shell Spirax S6 ATF ZM is the ultimate performance automatic transmission fluid allowing extended drain intervals even under the most severe conditions.

Performance, Features & Benefits:

- Exclusive technology
- Maximum oil drain interval potential
- Extremely low temperature fluidity
- Shift comfort and maintenance costs.

Main Applications:

Heavy duty automatic transmissions:

- Shell Spirax S6 ATF ZM can also be used in all ZF-Ecomat-and ZF-Ecolife transmissions, and where retarders are used.

Specifications, Approvals & Recommendations:

- ZF TE-ML 04D, 14E, 16N, 16Q, 20F
- MAN 339 Type Z13 (ZF-Ecolife 240,000 – 120,000 km depending on working temperature)
- MAN 339 Type Z4 (ZF-Ecomat 150,000 km)

Shell Spirax S2 ALS 90

High Performance, GL-5 axle oil for limited slip differentials

Shell Spirax S2 ALS 90 oil is blended for use in a wide variety of automotive axle units with limited slip differentials

Performance, Features & Benefits:

Comprehensive Components:

- Specially selected additives impart good anti-wear, anti-rust characteristics, oxidation and thermal stability as well as the required coefficient of friction to meet requirements of limited slip differentials

High quality base oils:

- Maintains low temperature flow in the designed temperature range, resists oxidation, and maintains oil film between gears.

Main Applications:

Automotive drivelines:

- Suitable for heavy duty vehicles, including construction machines or buses, and passenger cars which are fitted with limited slip differentials. May be used in other moderate to heavily loaded gear sets that will allow use of a friction modified, hypoid gear oil.

Specifications, Approvals & Recommendations:

- API Service Classification: GL-5 Limited Slip

Shell Lubricants
Macro Distributor

Shell Spirax S2 A 80W-90

High Performance, GL-5 axle oil

Shell Spirax S2 A 80W-90 is blended for use in a wide variety of automotive axle units subjected to heavy duty conditions

Performance, Features & Benefits:

Comprehensive Components:

- Specially selected additives impart good anti-wear, anti-rust characteristics, oxidation and thermal stability

High quality base oils:

- Maintains low temperature flow in the designed temperature range, resists oxidation, and maintains oil film between gears.

Main Applications:

- Automotive transmissions, differentials
- Moderate to heavily loaded gear sets in stationary and ancillary equipment
- Hypoid gear axles
- Motorcycle gear units separate from the engine
- Other automotive transmission units operating under high speed/shock load, high speed/low torque and low speed/high torque conditions.

Specifications, Approvals & Recommendations:

- API Service Classification: GL-5

Shell Spirax S2 A 85W-140

High Performance, GL-5 axle oil

Shell Spirax S2 A 85W-140 is blended for use in a wide variety of automotive axle units subjected to heavy duty conditions.

Performance, Features & Benefits:

Comprehensive Components:

- Specially selected additives impart good anti-wear, anti-rust characteristics, oxidation and thermal stability

High quality base oils:

- Maintains low temperature flow in the designed temperature range, resists oxidation, and maintains oil film between gears.

Main Applications:

- Automotive transmissions, differentials
- Moderate to heavily loaded gear sets in stationary and ancillary equipment
- Hypoid gear axles
- Motorcycle gear units separate from the engine
- Other automotive transmission units operating under high speed/shock load, high speed/low torque and low speed/high torque conditions.

Specifications, Approvals & Recommendations:

- API Service Classification: GL-5

Shell Lubricants
Macro Distributor

Shell Spirax S3 AX 80W-90

High Performance, GL-5 Axle Oil for general applications

Shell Spirax S3 AX 80W-90 is a high performance, API GL-5 gear and axle oil for moderate to heavily loaded on and off-road driveline applications requiring SAE 80W-90 oil.

Performance, Features & Benefits:

- Multiple vehicle applications
- Longer oil drain capability
- Longer transmission life.

Main Applications:

Automotive differentials:

- Automotive gearboxes, differentials and hypoid gear sets in motorcycle, passenger car, commercial vehicles, off-road construction and agricultural equipment.

General gear sets:

- Ancillary equipment gear sets and some industrial equipment.

Specifications, Approvals & Recommendations:

- Mercedes-Benz Sheet: 235.6
- MAN: 342 Type M2
- ZF TE-ML: 07A, 16C, 17B, 19B, 21A
- API Service Classification: GL-5
- US Military: MIL-L-2105D
- Shell Spirax S3 AX 80W-90 meets the service fill requirements of Mercedes-Benz Sheet 235.0

Shell Spirax S3 ALS 80W-90

High Performance, GL-5 Axle Oil for limited slip differentials

Shell Spirax S3 ALS 80W-90 oil is blended for use in a wide variety of automotive axle units with limited slip differentials including many ZF units.

Performance, Features & Benefits:

Comprehensive Components:

- Specially selected additives impart good anti-wear, anti-rust characteristics, oxidation and thermal stability as well as the required coefficient of friction to meet requirements of limited slip differentials

High quality base oils:

- Maintains low temperature flow in the designed temperature range, resists oxidation, and maintains oil film between gears.

Main Applications:

Automotive drivelines:

- Suitable for heavy duty vehicles, including construction machines or buses, and passenger cars which are fitted with limited slip differentials. May be used in other moderate to heavily loaded gear sets that will allow use of a friction modified, hypoid gear oil
- Specifically suitable for ZF units including Liebherr where a limited slip fluid is required.

Specifications, Approvals & Recommendations:

- ZF TE-ML: 05C, 12C, 21C
- API Service Classification: GL-5 Limited Slip
- Meets: MIL-L-2105D

Shell Lubricants
Macro Distributor

Shell Spirax S3 AX 85W-140

High Performance, GL-5 Axle Oil for general applications

Shell Spirax S3 AX 85W-140 is a high performance, API GL-5 gear and axle oil for moderate to heavily loaded on and off-road driveline applications requiring SAE 85W-140 oil.

Performance, Features & Benefits:

- Multiple vehicle applications
- Longer oil drain capability
- Longer transmission life.

Main Applications:

Automotive differentials:

- Automotive gearboxes, differentials and hypoid gear sets in motorcycle, passenger car, commercial vehicles, off-road construction and agricultural equipment.

General gear sets:

- Ancillary equipment gear sets and some industrial equipment.

Specifications, Approvals & Recommendations:

- MAN: 342 Type M1
- ZF TE-ML: 07A, 16D, 21A
- API Service Classification: GL-5
- US Military: MIL-L-2105D

Shell Spirax S4 AT 75W-90

High performance, synthetic blend, GL-4/5 oil for gearboxes and axles

Shell Spirax S4 AT 75W-90 is a part-synthetic superior quality automotive gear lubricant specially designed for use in gearboxes and axles.

Performance, Features & Benefits:

- Part synthetic
- Specially selected extreme-pressure and anti-wear additives
- Excellent anti-rust and anti-corrosion properties
- Lower power loss increases gear efficiency and therefore fuel economy capabilities
- 'Cold shift' and 'hot rattle' problems overcome in passenger car and van 5-speed gearboxes
- Extended oil drain period potential.

Main Applications:

Automotive Transmissions:

- Heavily loaded axle drives, synchronised and non-synchronised gearboxes.

Universal Driveline:

- This transmission oil has been designed to meet the requirements of both axles and gearboxes and can be used as "universal" Driveline lubricant in heavy duty and passenger car vehicles.

Specifications, Approvals & Recommendations:

- API Service Classification: GL-4, GL-5, MT-1.

Shell Lubricants
Macro Distributor

Shell Spirax
S5 ATE 75W-90

Premium performance, synthetic technology, GL-4/5 designed for sports cars

Shell Spirax S5 ATE 75W-90 is particularly designed to fulfil the highest requirements of extremely loaded passenger car drive train systems.

Performance, Features & Benefits:

- Outstanding gear protection and synchromesh performance
- Longer equipment life
- Improved drive train efficiency
- Environmentally friendly
- Recognised and used by leading sports cars manufacturers
- Part of the Shell synthetic lubricants range.

Main Applications:

Transaxle Transmissions:

- Heavily loaded “transaxle” transmission where hypoid axle and gearbox are in the same housing and lubricated by the same product. Particularly in sport passenger car drive train systems.

Automotive Transmissions:

- Heavily loaded axle drives, synchronised and non-synchronised gearboxes.

Specifications, Approvals & Recommendations:

- Ferrari
- Getrag
- MB 236.26
- API Service Classification: GL-4, GL-5, MT-1

Shell Spirax
S6 AXME 75W-90

Superior performance, synthetic, fuel efficient GL-5 Axle Oil for many premium applications

Shell Spirax S6 AXME 75W-90 is a unique fuel-efficient, long life transmission and axle oil, designed to provide ultimate protection to the latest heavy duty manual transmissions and axles. Specially formulated with synthetic base oils and additive technology unique for Shell, gives improved lubrication of the drive train, lowers the operating temperature and helps promote longer life for the equipment. Shell Spirax S6 AXME 75W-90 is also extended oil drain capable and is approved by several OEMs for their extended drain specifications.

Performance, Features & Benefits:

- Greater efficiency and therefore higher fuel economy
- Longer oil drain capacity
- Longer equipment life
- Less lubricant usage
- Recognised by leading equipment manufacturers.

Main Applications:

- Transmissions and axles.

Specifications, Approvals & Recommendations:

- SAE J 2360 (PRI GL 0582)
- Volvo 97312
- MAN 342 Typ S1, 341 GA-2
- Meritor 076-N, Meritor (EU) Extended Drain
- ZF TE-ML 05B, 12L, 12N, 16F, 17B, 19C, 21B
- Scania STO 2:0 G
- Scania STO 2:0 A FS
- DAF
- Mack GO-J
- APO GL-5, MT-1
- US Military MIL-PRF-2105E
- Meets IVECO 18-1805 Extended Drain requirements

Shell Lubricants
Macro Distributor

Shell Spirax
S6 AXME 80W-140

Superior performance, extended drain, synthetic Transmission Axle Oil for many premium applications

Shell Spirax S6 AXME 80W-140 is a fully synthetic, multipurpose, heavy-duty gear lubricant specifically designed for heavy duty differentials that call for an API GL-5 type product.

Performance, Features & Benefits:

- Outstanding thermal stability especially in applications where heat, wear and extended drain intervals contribute to severe service
- High film strength and excellent shear stability
- Excellent low temperature properties promote oil flow to help protect gears and bearings even at sub-zero temperatures
- Synthetic formula provides maximum protection over a wide range of temperatures
- Separates readily from water
- Compatible with other MIL-L-2105D or MIL-PRF-2105E quality gear lubricants.

Main Applications:

- Heavy-Duty diffierentials
- All applications normally lubricated by automotive gear oil such as rear wheel bearings, manual steering gears and universal joints calling for an SAE 80W-140 grade
- Transfer cases for automobiles, light and heavy-duty trucks, farm equipment and heavy construction equipment calling for SAE 80W-140 or 85W-140 grades
- Industrial gear applications where extreme pressure oils with excellent low and high temperature properties are required
- Differentials used in conjunction with Eaton and Meritor extended warranties calling for an SAE 80W-140 grade
- Manual transmissions where the manufacturer specifies a GL-5 oil of SAE 80W-140 or 85W-140.

Specifications, Approvals & Recommendations:

- Dana Specification SHAES 429 Rev. A
- Mack GO-J
- ArvinMeritor Specification O76-B (standard drain), O76-Q or R (extended drain)
- SAE J2360
- Harnischfeger (P&H) 474
- International Truck and Engine TMS 6816
- API Service Classification GL-5 and MT-1
- General Electric D50E9C
- US Military MIL-PRF-2105E
- U.S. Steel Specification 224
- American Gear Manufacturers (AGMC) Standard 250.03
- Scania STO 1:0

Shell Spirax S6 GME 50

Premium Synthetic ZF Freedom Line and Eaton Long Drain Manual Transmission Oil
Shell Spirax S6 GME 50 is the latest addition to the Shell Spirax family of axle and transmission fluids. It is a synthetic heavy-duty transmission fluid specially formulated for extended drain and severe service applications. This fluid is approved as a Roadranger® Genuine Lubricant for use in Eaton extended warranty transmission service.

Performance, Features & Benefits:

- All-climate year round performance
- Extended drain Intervals
- Longer transmission life
- Potential for increased fuel economy over the oil drain interval
- Part of the Shell family of heavy-duty lubricants and coolants.

Main Applications:

Heavy-Duty transmissions:

- Synchomesh and non-synchromesh gearboxes, including those with integrated retarders
- Medium laded axle drives where mineral or synthetic non-EP gear oils are required.

Specifications, Approvals & Recommendations:

- Eaton PS-164 rev 7
- Navistar TMS 6816
- Mack Truck TO-A-Plus
- Volvo 97305
- ZF FreedomLine
- API Service Classification MT-1

Shell Lubricants
Macro Distributor

Shell Spirax S4 CX 10W

High Performance Off-Highway Transmission and Hydraulic Oil
Shell Spirax S4 CX 10W is designed to provide operators with trouble free operation and maximum reliability for the lifetime of the equipment. Shell Spirax S4 CX 10W meets the demanding requirements of modern transmission, oil-immersed brake and hydraulic systems fitted to heavy-duty off-highway equipment.

Performance, Features & Benefits:

- Frictional performance and material compatibility
- Anti-wear protection
- Low temperature characteristics
- Optimum mechanical performance and long oil life
- Vickers 35V25 Hydraulic Pump Test
- Oxidation stability.

Main Applications:

- Shell Spirax S4 CX 10W is recommended for use in heavy duty off-highway equipment produced by the world's leading manufacturers including; Caterpillar, Komatsu, Komatsu-Dresser and in transmissions manufactured by Eaton, Eaton Fuller, ZF, Dana, Rockwell amongst others
- Powershift Transmissions
- Oil Immersed Brakes
- Hydraulic Systems.

Specifications, Approvals & Recommendations:

- Caterpillar Tractor: TO-4
- ZF TE-ML 03C
- Suitable for use in applications where Allison C-4 type fluids are required.
- Shell Spirax S4 CX 10W oil is suitable* for use in many powershift or manual transmissions, wet brake systems, and many off-highway hydraulic systems including those of Komatsu and Caterpillar

*Please check equipment manuals for appropriate selection of viscosity grade.

Shell Spirax S4 CX 30

High Performance Off-Highway Transmission and Hydraulic Oil for many applications

Shell Spirax S4 CX 30 is designed to provide operators with trouble free operation and maximum reliability for the lifetime of the equipment. Shell Spirax S4 CX 30 meets the demanding requirements of modern transmission, final drive, and oil immersed brakes fitted to heavy-duty off-highway equipment.

Performance, Features & Benefits:

- Frictional performance and material compatibility
- Anti-wear protection
- Low temperature characteristics
- Optimum mechanical performance and long oil life
- Vickers 35V25 Hydraulic Pump Test
- Oxidation stability.

Main Applications:

- Shell Spirax S4 CX 30 is recommended for use in heavy duty off-highway equipment produced by the world's leading manufacturers including; Caterpillar, Komatsu, Komatsu-Dresser and in transmissions manufactured by Eaton, Eaton Fuller, ZF, Dana, Rockwell amongst others
- Powershift Transmissions
- Final Drives
- Oil immersed Brakes.

Specifications, Approvals & Recommendations:

- Caterpillar Tractor: TO-4
- ZF TE-ML 03C, 07F
- Suitable for use in applications where Allison C-4 type fluids are required.
- Shell Spirax S4 CX 30 oil is suitable for use in many powershift or manual transmissions, wet brake systems, and some hydraulic systems including Komatsu.

Shell Lubricants
Macro Distributor

Shell Spirax S4 CX 50

High performance off-highway final drive and axle oil

Shell Spirax S4 CX 50 is designed to provide operators with trouble free operation and maximum reliability for the lifetime of the equipment. Shell Spirax S4 CX 50 meets the demanding requirements of modern transmission, final drive, and oil immersed brakes fitted to heavy-duty off-highway equipment.

Performance, Features & Benefits:

- Frictional performance and material compatibility
- Anti-wear protection
- Low temperature characteristics
- Optimum mechanical performance and long oil life
- Oxidation stability.

Main Applications:

- Shell Spirax S4 CX 50 is recommended for use in heavy duty off-highway equipment produced by the world's leading manufacturers including; Caterpillar, Komatsu, Komatsu-Dresser and in transmissions manufactured by Eaton, Eaton Fuller, ZF, Dana, Rockwell amongst others
- Powershift Transmissions
- Final Drives
- Oil immersed Brakes.

Specifications, Approvals & Recommendations:

- Caterpillar Tractor: TO-4
- Suitable for use in applications where Allison C-4 type fluids are required.

Shell Spirax S4 CX 60

High performance off-highway final drive and axle oil

Shell Spirax S4 CX 60 is designed to provide operators with trouble free operation and maximum reliability for the lifetime of the equipment. Shell Spirax S4 CX 60 meets the demanding requirements of modern transmission, final drive and oil immersed brakes fitted to heavy-duty off-highway equipment.

Performance, Features & Benefits:

- Frictional performance and material compatibility
- Anti-wear protection
- Low temperature characteristics
- Optimum mechanical performance and long oil life
- Oxidation stability.

Main Applications:

- Shell Spirax S4 CX 60 is recommended for use in heavy duty off-highway equipment produced by the world's leading manufacturers including; Caterpillar, Komatsu, Komatsu-Dresser and in transmissions manufactured by Eaton, Eaton Fuller, ZF, Dana, Rockwell amongst others
- Powershift Transmissions
- Final Drives
- Oil immersed Brakes.

Specifications, Approvals & Recommendations:

- Caterpillar Tractor: TO-4
- Suitable for use in applications where Allison C-4 type fluids are required.

Shell Lubricants
Macro Distributor

Shell Spirax Oil S5 CFD M 60

High performance off-highway final drive and axle oil

Shell Spirax S5 CFD M 60 is a dedicated final drive and axle oil which offers significantly improved protection for gears and bearing in bevel gears, differentials, final drive and axles. It meets Caterpillar FD-1 final drive axle oil (FDAO) specification. Shell Spirax S5 CFD M 60 has been developed for continuous use in extreme ambient temperatures in off road vehicles.

Performance, Features & Benefits:

- Improved bearing life
- Improved corrosion protection
- Improved oil life.

Main Applications:

- Shell Spirax S5 CFD M 60 is recommended for use in all Caterpillar Final Drive & Axles that currently specify the use of Cat FD-1 fluids. It can also be used in transmissions requiring TO-4 fluids that do not contain friction material. It is not recommended for final drives which contain brakes. It should also not be used in engines or hydraulic systems
- Axles
- Final drives.

Specifications, Approvals & Recommendations:

- Caterpillar FD-1 or where CAT FD-1 (FDAO) is specified

Compatibility & Miscibility:

- Shell Spirax S5 CFD M 60 is fully compatible with all seal material employed in CAT equipment; and is also compatibile with Shell Spirax S4 CX oils and oils meeting CAT TO-4.
- Shell Spirax S4 CFD M 60 should not be used in transmissions containing friction materials (eg. those with wet brakes or clutch materials). Use of Shell Spirax S4 CX oils in those transmissions is recommended.

Shell Spirax S3 T

Premium Performance, SAE 15W-40, Universal Tractor Oil

Shell Spirax S3 T Oil is 'Super Tractor Oil Universal' (STOU) oil designed for use in a wide variety of modern agricultural equipment. It is a blend of high viscosity index base oils and an advanced additive package designed to give reliable performance in a wide range of farming applications.

Performance, Features & Benefits:

- Practical, convenient and multi-functional
- High performance
- Excellent gear protection
- Jerk-free hydraulic operation
- Excellent anti-corrosion properties.

Main Applications:

- Universal performance

Suitable for many types of tractor transmission/hydraulic systems:

- Oil immersed brakes
- Powershift transmissions
- Hydraulics
- Power steering systems
- Hydrastatic transmissions
- Conventional gear drive systems.

Specifications, Approvals & Recommendations:

- Massey Ferguson M 1139, M 1144
- Caterpillar CAT TO-2
- John Deere JDM J27
- ZF TE-ML 06B, 06Q, 07B
- API Service Classification GL-4
- Can be used in applications requiring API CF-4 / SF performance level

Shell Lubricants
Macro Distributor

Shell Spirax S4 TXM

Premium SAE 10W-30 Multi-functional Tractor Transmission and Hydraulic Oil

Premium "Universal Tractor Transmission Oil" (UTTO) designed for use in transmissions, hydraulic systems, oil immersed brakes and other ancillary systems fitted to agricultural tractors and off-road equipment. Spirax S4 TXM is recognised by leading agricultural equipment manufacturers and suitable for use in most modern equipment.

Performance, Features & Benefits:

- Enhanced protection
- Operator comfort
- OEM recognition.

Main Applications:

- Agricultural tractor transmissions
- Hydraulic systems
- Oil immersed brakes.

Warning: Not to be used as an Engine Oil.

Specifications, Approvals & Recommendations:

- Suitable for use in applications where Allison C-4 type fluids are required
- Shell Spirax S4 TXM can be used when a SAE J 306 85W grade is recommended
- John Deere JDM-J20C
- Massey-Ferguson M1143, M1145
- Volvo WB 101, Transmission Oil 97303:015
- Caterpillar TO-2
- Komatsu – recommended for use in certain construction equipment
- Dana-Spicer mechanically controlled transmissions
- Shell Spirax S4 TXM is also recommended for use in Case equipment where fluids meeting MS 1207, 1209 or 1210 are specified
- API Gear Performance: API GL-4
- ZF TE-ML 03E, 05F, 06D, 06K, 06M, 06N, 06R, 17E, 21F

Shell Tegula V 32

Advanced Technology Oil for Hydrodynamic Transmissions

Shell Tegula V 32 is an advanced technology oil designed to meet the latest requirements of variators and advanced railway transmission systems combining hydrodynamic couplings and torque converters with mechanical gears.

Performance, Features & Benefits:

- Based on a blend of highly refined mineral oils and optimized additive system for superior thermal and oxidative stability
- Meets increased thermal requirements of railway hydrodynamic transmissions for extended drain intervals
- Provides excellent and constant air release properties over long period
- Excellent extreme-pressure and micro-pitting resistance properties permit excellent load carrying capacity with reduced component wear
- Compatibility with all seal materials and paints normally specified for use with mineral oil
- Enhanced compatibility with yellow metals even at higher temperatures
- Not recommended for use industrial couplings if excessive water entrainment cannot be avoided.

Main Applications:

Railway hydrodynamic transmission systems:

- Transmission systems for railway diesel engines consist of various combinations of fluid couplings, torque converters and transmission gears.

This type of transmission is used in combination with a hydrodynamic brake which is operated to reduce brake shoe wear during periods of prolonged braking down long slopes. At times, the brake oil temperature may reach up to 140°C.

- Gears and PIV variator lubrication.

Specifications, Approvals & Recommendations:

- Voith 3.285-149 (for use in Voith Power Transmissions)
- Tegula V 32 is approved and recommended by Voith Turbo, PIV and Lenze.

Industrial Oils

Products for industrial and hydraulic applications

Applications

10.0 Hydraulic Oils

11.0 Industrial Gear Oils

Industrial Oils

Applications

11.0 Industrial Gear Oils (cont.)

12.0 Turbine Oils

13.0 Bearing & Circulating Oils

Industrial Oils

Applications

14.0 Compressor Oils

15.0 Specialist Application Oils

Shell Tellus S2 MX 100

High Performance Hydraulic Fluid, Group II Base Oil Technology, Industrial Applications

Shell Tellus S2 MX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress and help prevent damaging deposit formation that can decrease the efficiency of your hydraulic power system.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Industrial hydraulic systems
Shell Tellus S2 MX fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Mobile hydraulic fluid power transmission systems
Shell Tellus S2 MX fluids can be used effectively in mobile hydraulic power applications such as excavators and cranes, except where significant ambient temperature variations are encountered. For these applications we recommend Shell Tellus S2 VX
- Marine hydraulic systems
Suitable for marine applications where ISO HM category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Eaton E-FDGN-TB002-E
- ISO 11158 (HM fluids)
- DIN 51524 Part 2 HLP type
- ASTM D6158-05 (HM fluids).

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 MX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 MX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility
Shell Tellus S2 MX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S2 MX 22

High Performance Hydraulic Fluid, Group II Base Oil Technology, Industrial Applications

Shell Tellus S2 MX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress and help prevent damaging deposit formation that can decrease the efficiency of your hydraulic power system.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Industrial hydraulic systems
Shell Tellus S2 MX fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Mobile hydraulic fluid power transmission systems
Shell Tellus S2 MX fluids can be used effectively in mobile hydraulic power applications such as excavators and cranes, except where significant ambient temperature variations are encountered. For these applications we recommend Shell Tellus S2 VX
- Marine hydraulic systems
Suitable for marine applications where ISO HM category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Eaton E-FDGN-TB002-E
- ISO 11158 (HM fluids)
- DIN 51524 Part 2 HLP type
- ASTM D6158-05 (HM fluids).

Compatibility & Miscibility:

- Compatibility

Shell Tellus S2 MX fluids are suitable for use with most hydraulic pumps

- Fluid Compatibility

Shell Tellus S2 MX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)

- Seal and Paint Compatibility

Shell Tellus S2 MX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S2 MX 32

High Performance Hydraulic Fluid, Group II Base Oil Technology, Industrial Applications

Shell Tellus S2 MX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress and help prevent damaging deposit formation that can decrease the efficiency of your hydraulic power system.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Industrial hydraulic systems
Shell Tellus S2 MX fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Mobile hydraulic fluid power transmission systems
Shell Tellus S2 MX fluids can be used effectively in mobile hydraulic power applications such as excavators and cranes, except where significant ambient temperature variations are encountered. For these applications we recommend Shell Tellus S2 VX
- Marine hydraulic systems
Suitable for marine applications where ISO HM category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Bosch Rexroth Fluid Rating RDE 90245
- Parker Denison (HF-0, HF-1, HF-2)
- Eaton E-FDGN-TB002-E
- Fives (Cincinnati Machine) P-68
- ISO 11158 (HM fluids)
- DIN 51524 Part 2 HLP type
- ASTM D6158-05 (HM fluids)
- Swedish Standard SS 15 54 35 AM.

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 MX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 MX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility
Shell Tellus S2 MX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S2 MX 46

Industrial Hydraulic Fluid, Group II Base Oil Technology, Industrial Applications

Shell Tellus S2 MX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress and help prevent damaging deposit formation that can decrease the efficiency of your hydraulic power system.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Industrial hydraulic systems
Shell Tellus S2 MX fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Mobile hydraulic fluid power transmission systems
Shell Tellus S2 MX fluids can be used effectively in mobile hydraulic power applications such as excavators and cranes, except where significant ambient temperature variations are encountered. For these applications we recommend Shell Tellus S2 VX
- Marine hydraulic systems
Suitable for marine applications where ISO HM category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Bosch Rexroth Fluid Rating RDE 90245
- Parker Denison (HF-0, HF-1, HF-2)
- Eaton E-FDGN-TB002-E
- Fives (Cincinnati Machine) P-70
- ISO 11158 (HM fluids)
- DIN 51524 Part 2 HLP type
- ASTM D6158-05 (HM fluids)
- Swedish Standard SS 15 54 35 AM.

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 MX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 MX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility

Shell Tellus S2 MX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S2 MX 68

High Performance Hydraulic Fluid, Group II Base Oil Technology, Industrial Applications

Shell Tellus S2 MX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress and help prevent damaging deposit formation that can decrease the efficiency of your hydraulic power system.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Industrial hydraulic systems
Shell Tellus S2 MX fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Mobile hydraulic fluid power transmission systems
Shell Tellus S2 MX fluids can be used effectively in mobile hydraulic power applications such as excavators and cranes, except where significant ambient temperature variations are encountered. For these applications we recommend Shell Tellus S2 VX
- Marine hydraulic systems
Suitable for marine applications where ISO HM category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Bosch Rexroth Fluid Rating RDE 90245
- Parker Denison (HF-0, HF-1, HF-2)
- Eaton E-FDGN-TB002-E
- Fives (Cincinnati Machine) P-69
- ISO 11158 (HM fluids)
- DIN 51524 Part 2 HLP type
- ASTM D6158-05 (HM fluids)
- Swedish Standard SS 15 54 35 AM.

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 MX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 MX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility
Shell Tellus S2 MX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Lubricants
Macro Distributor

Shell Tellus S2 VX 100

Industrial Hydraulic Fluid, Group II Base Oil Technology, Industrial Applications

Shell Tellus S2 VX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance across a wide range of temperatures. They resist breakdown under heat or mechanical stress and are ideally suited to most mobile equipment and other applications subjected to a wider range of ambient or operating temperatures.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Mobile/exterior hydraulic systems

Hydraulic and fluid power transmission systems in exposed environments can be subject to wide variations in temperature. The high viscosity index of Shell Tellus S2 VX helps deliver responsive performance from cold start conditions to full load, severe duty operation

- Precision hydraulic systems

Precision hydraulic systems require excellent control of fluid viscosity over the operating cycle. Shell Tellus S2 VX provides greater temperature-viscosity stability compared to ISO HM fluids that can help improve the performance of such systems

- Marine hydraulic systems

Suitable for marine applications where ISO HV category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Eaton E-FDGN-TB002-E
- Fives (Cincinnati Machine) P-70
- ISO 11158 (HV fluids)
- DIN 51524 Part 3 HVLP type
- ASTM D6158 (HV fluids).

Compatibility & Miscibility:

- Compatibility

Shell Tellus S2 VX fluids are suitable for use with most hydraulic pumps

- Fluid Compatibility

Shell Tellus S2 VX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)

- Seal and Paint Compatibility

Shell Tellus S2 VX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S2 VX 15

High Performance Hydraulic Fluid, Group II Base Oil Technology, Industrial Applications

Shell Tellus S2 VX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance across a wide range of temperatures. They resist breakdown under heat or mechanical stress and are ideally suited to most mobile equipment and other applications subjected to a wider range of ambient or operating temperatures.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Mobile/exterior hydraulic systems
Hydraulic and fluid power transmission systems in exposed environments can be subject to wide variations in temperature. The high viscosity index of Shell Tellus S2 VX helps deliver responsive performance from cold start conditions to full load, severe duty operation
- Precision hydraulic systems
Precision hydraulic systems require excellent control of fluid viscosity over the operating cycle. Shell Tellus S2 VX provides greater temperature-viscosity stability compared to ISO HM fluids that can help improve the performance of such systems
- Marine hydraulic systems
Suitable for marine applications where ISO HV category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Eaton E-FDGN-TB002-E
- ISO 11158 (HV fluids)
- DIN 51524 Part 3 HVLP type
- ASTM D6158 (HV fluids).

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 VX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 VX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility
Shell Tellus S2 VX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S2 VX 22

High Performance Hydraulic Fluid, Group II Base Oil Technology, Versatile Applications

Shell Tellus S2 VX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance across a wide range of temperatures. They resist breakdown under heat or mechanical stress and are ideally suited to most mobile equipment and other applications subjected to a wider range of ambient or operating temperatures.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Mobile/exterior hydraulic systems
Hydraulic and fluid power transmission systems in exposed environments can be subject to wide variations in temperature. The high viscosity index of Shell Tellus S2 VX helps deliver responsive performance from cold start conditions to full load, severe duty operation
- Precision hydraulic systems
Precision hydraulic systems require excellent control of fluid viscosity over the operating cycle. Shell Tellus S2 VX provides greater temperature-viscosity stability compared to ISO HM fluids that can help improve the performance of such systems
- Marine hydraulic systems
Suitable for marine applications where ISO HV category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Eaton E-FDGN-TB002-E
- ISO 11158 (HV fluids)
- DIN 51524 Part 3 HVLP type
- ASTM D6158 (HV fluids).

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 VX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 VX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility
Shell Tellus S2 VX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S2 VX 32

High Performance Hydraulic Fluid, Group II Base Oil Technology, Versatile Applications

Shell Tellus S2 VX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance across a wide range of temperatures. They resist breakdown under heat or mechanical stress and are ideally suited to most mobile equipment and other applications subjected to a wider range of ambient or operating temperatures.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Mobile/exterior hydraulic systems
Hydraulic and fluid power transmission systems in exposed environments can be subject to wide variations in temperature. The high viscosity index of Shell Tellus S2 VX helps deliver responsive performance from cold start conditions to full load, severe duty operation
- Precision hydraulic systems
Precision hydraulic systems require excellent control of fluid viscosity over the operating cycle. Shell Tellus S2 VX provides greater temperature-viscosity stability compared to ISO HM fluids that can help improve the performance of such systems
- Marine hydraulic systems
Suitable for marine applications where ISO HV category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Parker Denison (HF-0, HF-1, HF-2)
- Eaton E-FDGN-TB002-E
- Fives (Cincinnati Machine) P-68
- ISO 11158 (HV fluids)
- DIN 51524 Part 3 HVLP type
- ASTM D6158 (HV fluids)
- Swedish Standard SS 15 54 34 AM.

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 VX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 VX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility
Shell Tellus S2 VX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Lubricants
Macro Distributor

Shell Tellus S2 VX 46

High Performance Hydraulic Fluid, Group II Base Oil Technology, Versatile Applications

Shell Tellus S2 VX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance across a wide range of temperatures. They resist breakdown under heat or mechanical stress and are ideally suited to most mobile equipment and other applications subjected to a wider range of ambient or operating temperatures.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Mobile/exterior hydraulic systems
Hydraulic and fluid power transmission systems in exposed environments can be subject to wide variations in temperature. The high viscosity index of Shell Tellus S2 VX helps deliver responsive performance from cold start conditions to full load, severe duty operation
- Precision hydraulic systems
Precision hydraulic systems require excellent control of fluid viscosity over the operating cycle. Shell Tellus S2 VX provides greater temperature-viscosity stability compared to ISO HM fluids that can help improve the performance of such systems
- Marine hydraulic systems
Suitable for marine applications where ISO HV category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Parker Denison (HF-0, HF-1, HF-2)
- Eaton E-FDGN-TB002-E
- Fives (Cincinnati Machine) P-70
- ISO 11158 (HV fluids)
- DIN 51524 Part 3 HVLP type
- ASTM D6158 (HV fluids)
- Swedish Standard SS 15 54 34 AM.

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 VX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 VX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility
Shell Tellus S2 VX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S2 VX 68

High Performance Hydraulic Fluid, Group II Base Oil Technology, Versatile Applications

Shell Tellus S2 VX fluids are high performance hydraulic fluids based on Group II base oils that provide outstanding protection and performance across a wide range of temperatures. They resist breakdown under heat or mechanical stress and are ideally suited to most mobile equipment and other applications subjected to a wider range of ambient or operating temperatures.

Performance, Features & Benefits:

- Long Fluid Life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Mobile/exterior hydraulic systems
Hydraulic and fluid power transmission systems in exposed environments can be subject to wide variations in temperature. The high viscosity index of Shell Tellus S2 VX helps deliver responsive performance from cold start conditions to full load, severe duty operation
- Precision hydraulic systems
Precision hydraulic systems require excellent control of fluid viscosity over the operating cycle. Shell Tellus S2 VX provides greater temperature-viscosity stability compared to ISO HM fluids that can help improve the performance of such systems
- Marine hydraulic systems
Suitable for marine applications where ISO HV category hydraulic fluids are recommended.

Specifications, Approvals & Recommendations:

- Parker Denison (HF-0, HF-1, HF-2)
- Eaton E-FDGN-TB002-E
- Fives (Cincinnati Machine) P-69
- ISO 11158 (HV fluids)
- DIN 51524 Part 3 HVLP type
- ASTM D6158 (HV fluids)
- Swedish Standard SS 15 54 34 AM.

Compatibility & Miscibility:

- Compatibility
Shell Tellus S2 VX fluids are suitable for use with most hydraulic pumps
- Fluid Compatibility
Shell Tellus S2 VX fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Seal and Paint Compatibility
Shell Tellus S2 VX fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S3 M 100

Premium Zinc-Free Industrial Hydraulic Fluid

Shell Tellus S3 M hydraulic fluids are high performance lubricants that use exclusive zinc-free technology to provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress, helping to prevent damaging deposits that can decrease the efficiency of your hydraulic system.

Performance, Features & Benefits:

- Long fluid life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Shell Tellus S3 M fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Shell Tellus S3 M has a reduced environmental impact in the event of a leak or accidental spillage compared to conventional zinc-based hydraulic fluids

For further reductions in environmental impact, we offer the Shell Naturelle range of environmentally considerate lubricants

For applications that experience wide temperature variations we recommend the Shell Tellus “S2 V” series of hydraulic fluids.

Specifications, Approvals & Recommendations:

- ISO 11158 (HM fluids)
- DIN 51524-2 (HLP oils)
- ASTM D6158 (HM fluids)
- SS 15 54 34 M.

Compatibility & Miscibility:

- Shell Tellus S3 M fluids are suitable for use with most hydraulic pumps
- Shell Tellus S3 M fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Shell Tellus S3 M fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S3 M 32

Premium Zinc-Free Industrial Hydraulic Fluid

Shell Tellus S3 M hydraulic fluids are high performance lubricants that use exclusive zinc-free technology to provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress, helping to prevent damaging deposits that can decrease the efficiency of your hydraulic system.

Performance, Features & Benefits:

- Long fluid life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Shell Tellus S3 M fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Shell Tellus S3 M has a reduced environmental impact in the event of a leak or accidental spillage compared to conventional zinc-based hydraulic fluids

For further reductions in environmental impact, we offer the Shell Naturelle range of environmentally considerate lubricants

For applications that experience wide temperature variations we recommend the Shell Tellus “S2 V” series of hydraulic fluids.

Specifications, Approvals & Recommendations:

- ISO 11158 (HM fluids)
- DIN 51524-2 (HLP oils)
- ASTM D6158 (HM fluids)
- SS 15 54 34 M
- Denison Hydraulics (HF-0, HF-1 and HF-2)
- Eaton Vickers Brochure (694)
- Fives Cincinnati P-68 (ISO 32).

Compatibility & Miscibility:

- Shell Tellus S3 M fluids are suitable for use with most hydraulic pumps
- Shell Tellus S3 M fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Shell Tellus S3 M fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S3 M 68

Premium Zinc-Free Industrial Hydraulic Fluid

Shell Tellus S3 M hydraulic fluids are high performance lubricants that use exclusive zinc-free technology to provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress, helping to prevent damaging deposits that can decrease the efficiency of your hydraulic system.

Performance, Features & Benefits:

- Long fluid life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Shell Tellus S3 M fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Shell Tellus S3 M has a reduced environmental impact in the event of a leak or accidental spillage compared to conventional zinc-based hydraulic fluids

For further reductions in environmental impact, we offer the Shell Naturelle range of environmentally considerate lubricants

For applications that experience wide temperature variations we recommend the Shell Tellus “S2 V” series of hydraulic fluids.

Specifications, Approvals & Recommendations:

- ISO 11158 (HM fluids)
- DIN 51524-2 (HLP oils)
- ASTM D6158 (HM fluids)
- SS 15 54 34 M
- Denison Hydraulics (HF-0, HF-1 and HF-2)
- Eaton Vickers Brochure (694)
- Fives Cincinnati P-69 (ISO 68).

Compatibility & Miscibility:

- Shell Tellus S3 M fluids are suitable for use with most hydraulic pumps
- Shell Tellus S3 M fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Shell Tellus S3 M fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S3 M 46

Premium Zinc-Free Industrial Hydraulic Fluid

Shell Tellus S3 M hydraulic fluids are high performance lubricants that use exclusive zinc-free technology to provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress, helping to prevent damaging deposits that can decrease the efficiency of your hydraulic system.

Performance, Features & Benefits:

- Long fluid life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Shell Tellus S3 M fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Shell Tellus S3 M has a reduced environmental impact in the event of a leak or accidental spillage compared to conventional zinc-based hydraulic fluids

For further reductions in environmental impact, we offer the Shell Naturelle range of environmentally considerate lubricants

For applications that experience wide temperature variations we recommend the Shell Tellus “S2 V” series of hydraulic fluids.

Specifications, Approvals & Recommendations:

- ISO 11158 (HM fluids)
- DIN 51524-2 (HLP oils)
- ASTM D6158 (HM fluids)
- SS 15 54 34 M
- Denison Hydraulics (HF-0, HF-1 and HF-2)
- Eaton Vickers Brochure (694)
- Fives Cincinnati P-70 (ISO 46).

Compatibility & Miscibility:

- Shell Tellus S3 M fluids are suitable for use with most hydraulic pumps
- Shell Tellus S3 M fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Shell Tellus S3 M fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Lubricants
Macro Distributor

Shell Tellus S3 M 46 (Fine)

Premium Zinc-Free Industrial Hydraulic Fluid

Shell Tellus S3 M hydraulic fluids are high performance lubricants that use exclusive zinc-free technology to provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress, helping to prevent damaging deposits that can decrease the efficiency of your hydraulic system.

Performance, Features & Benefits:

- Long fluid life – maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Shell Tellus S3 M fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments
- Shell Tellus S3 M has a reduced environmental impact in the event of a leak or accidental spillage compared to conventional zinc-based hydraulic fluids

For further reductions in environmental impact, we offer the Shell Naturelle range of environmentally considerate lubricants

For applications that experience wide temperature variations we recommend the Shell Tellus “S2 V” series of hydraulic fluids.

Specifications, Approvals & Recommendations:

- ISO 11158 (HM fluids)
- DIN 51524-2 (HLP oils)
- ASTM D6158 (HM fluids)
- SS 15 54 34 M
- Denison Hydraulics (HF-0, HF-1 and HF-2)
- Eaton Vickers Brochure (694)
- Fives Cincinnati P-70 (ISO 46).

Compatibility & Miscibility:

- Shell Tellus S3 M fluids are suitable for use with most hydraulic pumps
- Shell Tellus S3 M fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Shell Tellus S3 M fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S4 ME 46

Advanced Synthetic Industrial Hydraulic Fluid

Shell Tellus S4 ME hydraulic fluids are designed to help users improve the energy efficiency of their hydraulic systems without compromising the protection of the system or maintenance procedures of their equipment and operations. Shell Tellus S4 ME has been demonstrated to improve energy efficiency in a wide range of applications such as plastic injection moulding, metal pressing, and mining conveyors. In addition, Shell Tellus S4 ME is also designed to help equipment service life and lower maintenance costs through providing outstanding wear protection and long oil life capability.

Performance, Features & Benefits:

- Energy efficiency
- Reduce maintenance costs
- Greater equipment protection.

Main Applications:

- Particularly suitable for those systems with high intensity of hydraulic power usage such as injection moulding and high pressure metal pressing operations and where resistance to high temperatures or long oil life is required
- Shell Tellus S4 ME is also suitable for use in certain mobile hydraulic fluid power transmission systems and in marine applications and provides superior low temperature fluidity compared to most conventional ISO HM type fluids
- Shell Tellus S4 ME oils provide a reduced environmental impact in the case of leakage or accidental spillage compared to conventional zinc-based hydraulic fluids through the use of ashless anti-wear technology and low sulphur base oils.

Specifications, Approvals & Recommendations:

- Denison Hydraulics (HF-0, HF-1, HF-2)
- Five Cincinnati P-70 (ISO 46)
- Eaton Vickers (Brochure 694)
- Bosch Rexroth RD 90220-01 (2011)
- Arburg (Injection moulding applications)
- ASTM D6158 (HM fluids)
- ISO 11158 (HM fluids)
- DIN 51524 Part 2 HLP type
- Swedish Standard SS 15 54 34 AM
- Krauss Maffei.

Compatibility & Miscibility:

- Shell Tellus S4 ME fluids are suitable for use with most hydraulic pumps
- Shell Tellus S4 ME fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Shell Tellus S4 ME fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Tellus S4 ME 68

Advanced Synthetic Industrial Hydraulic Fluid

Shell Tellus S4 ME hydraulic fluids are designed to help users improve the energy efficiency of their hydraulic systems without compromising the protection of the system or maintenance procedures of their equipment and operations. Shell Tellus S4 ME has been demonstrated to improve energy efficiency in a wide range of applications such as plastic injection moulding, metal pressing, and mining conveyors. In addition, Shell Tellus S4 ME is also designed to help equipment service life and lower maintenance costs through providing outstanding wear protection and long oil life capability.

Performance, Features & Benefits:

- Energy efficiency
- Reduce maintenance costs
- Greater equipment protection.

Main Applications:

- Particularly suitable for those systems with high intensity of hydraulic power usage such as injection moulding and high pressure metal pressing operations and where resistance to high temperatures or long oil life is required
- Shell Tellus S4 ME is also suitable for use in certain mobile hydraulic fluid power transmission systems and in marine applications and provides superior low temperature fluidity compared to most conventional ISO HM type fluids
- Shell Tellus S4 ME oils provide a reduced environmental impact in the case of leakage or accidental spillage compared to conventional zinc-based hydraulic fluids through the use of ashless anti-wear technology and low sulphur base oils.

Specifications, Approvals & Recommendations:

- Denison Hydraulics (HF-0, HF-1, HF-2)
- Five Cincinnati P-69 (ISO 68)
- Eaton Vickers (Brochure 694)
- ASTM D6158 (HM fluids)
- ISO 11158 (HM fluids)
- DIN 51524 Part 2 HLP type
- Swedish Standard SS 15 54 34 AM
- Krauss Maffei
- Bosch Rexroth RD 90220-01 (2011), ISO 32-68.

Compatibility & Miscibility:

- Shell Tellus S4 ME fluids are suitable for use with most hydraulic pumps
- Shell Tellus S4 ME fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids)
- Shell Tellus S4 ME fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Naturelle HF-E 46

Fully Synthetic, Biodegradable, Less-flammable Hydraulic Fluid

Shell Naturelle Fluid HF-E is an advanced biodegradable and HFDU type less flammable hydraulic fluid for use in hydraulic and power transmission systems. It is readily biodegradable with a low ecotoxicity, particularly suited for use in environmentally sensitive areas and in industrial equipment operating in areas subject to fire hazards, such as in steel mills, surface mines and foundries.

Performance, Features & Benefits:

- Excellent wear protection
- Maintaining system efficiency
- Readily biodegradable and low ecotoxicity
- Fire resistances.

Main Applications:

- Mobile / exterior hydraulic applications
- General industrial control equipment and hydraulic systems
- Environmentally sensitive areas
- Industrial operation subject to fire hazards.

Specifications, Approvals & Recommendations:

- European Union ecolabel for lubricants
- Ecolabel licence UK/27/004
- Swedish Standard SS 15 54 34, SP listed
- ISO 15380 HEES
- ISO 12922 HFDU
- Factory Mutual approved
- United States Environmental protection Agency's (EPA) 2013 Vessel General Permit (VGP)
- VDMA 24568 synthetic esters
- Dutch MIA/VAMIL Milieulijst
- German Positivliste Bioschmierstoffe
- USDA Bio-preferred program
- Sperry Marine
- Quantum Marine Engineering
- Rolls Royce Marine
- Shell Naturelle Fluid HF-E is approved as meeting the anti-wear requirements of the hydraulic fluid recommendations for Eaton Vickers products for mobile and industrial systems according to Brochure 03-401-2010.

Shell Naturelle HF-E 68

Fully Synthetic, Biodegradable, less-flammable Hydraulic Fluid

Shell Naturelle Fluid HF-E is an advanced biodegradable and HFDU type less-flammable hydraulic fluid for use in hydraulic and power transmission systems. It is readily biodegradable with a low ecotoxicity, particularly suited for use in environmentally sensitive areas and in industrial equipment operating in areas subject to fire hazards, such as in steel mills, surface mines and foundries.

Performance, Features & Benefits:

- Excellent wear protection
- Maintaining system efficiency
- Readily biodegradable and low ecotoxicity
- Fire resistances.

Main Applications:

- Mobile / exterior hydraulic applications
- General industrial control equipment and hydraulic systems
- Environmentally sensitive areas
- Industrial operation subject to fire hazards.

Specifications, Approvals & Recommendations:

- European Union ecolabel for lubricants
- Ecolabel licence UK/27/004
- Swedish Standard SS 15 54 34, SP listed
- ISO 15380 HEES
- ISO 12922 HFDU
- Factory Mutual approved
- MSHA (Mine Safety and Health Administration) approved
- United States Environmental protection Agency's (EPA) 2013 Vessel General Permit (VGP)
- VDMA 24568 synthetic esters
- Dutch MIA/VAMIL Milieulijst
- German Positivliste Bioschmierstoffe
- USDA Bio-preferred program
- Sperry Marine
- Wartsila
- Rolls Royce Marine
- Shell Naturelle Fluid HF-E is approved as meeting the anti-wear requirements of the hydraulic fluid recommendations for Eaton Vickers products for mobile and industrial systems according to Brochure 03-401-2010.

Shell Irus Fluid C

High Performance HFC type fire-resistant hydraulic fluid

Shell Irus Fluid C is an advanced water-glycol fire resistant hydraulic fluid containing powerful additives to enhance its anti-wear, anti-corrosion and anti-oxidation properties. The water content is approximately 40% by weight.

Performance, Features & Benefits:

- Fire resistant for high risk installations
- Excellent components and fluid duration
- Improved wear performance against minimum industry standard
- Fluid life
- Control of water content
- Lubrication and component life
- Conversion from other type of fluids.

Main Applications:

- Irus Fluid C is particularly suitable for demanding hydraulic applications where there is a high fire risk, such as those found in the Metal and Mining industries

- In order to reduce water evaporation, Irus C (as for all ISO HFC type fluids), should not be used above 65^{0}C. The recommended maximum operating temperature is 50^{0}C. To maintain fire-resistance it is important to monitor the water content of the fluid and replenish if necessary when operating at elevated bulk fluid temperatures.

Specifications, Approvals & Recommendations:

- ISO 6743-4 (1999) HFC Type Fluid
- ISO 12922 (1999) HFC Type Fluid
- DIN 51502 HFC 46
- Irus C is tested and approved by the UK Health and Safety Laboratory (Buxton) for fire resistance according to European legislative requirements
- Resistance to flame (UK) test – Lux 7th 3.1.2
- Stablised flame heat release test – Lux 7th 3.1.3
- Wick text – Lux 7th 3.2.2
- Irus C is compliant with the essential technological test criteria of the “Safety & Health Commission for the Mining & Other Extractive Industry 7th Edition 47-46-10-91” also known as “7th report of Luxembourg”.

Shell Lubricants
Macro Distributor

Shell Irus Fluid DR 46

HFD-R type fire-resistant hydraulic fluid

Shell Irus Fluid DR is a tri-aryl phosphate ester fire-resistant hydraulic fluid and contains carefully selected additives to give superior oxidation and hydrolytic stability characteristics.

Performance, Features & Benefits:

- Irus DR has excellent fire resistance. This is demonstrated in numerous standard tests designed to simulate its performance in the three most common fire risk scenarios
- Ignitability of a spray or jet of fluid
- Spillage on to a hot surface or molten metal
- Ignitability of the fluid when soaked into an adsorbent material
- The fire resistances is inherent in Irus DR. It is not achieved by the use of additives and therefore will not change with time. Protection is available throughout all parts of the system and the whole time the fluid is in the system
- Non-toxic under EEC Regulations
- Extended fluid change intervals
- Pump life similar to life with mineral hydraulic oils
- Fire resistance maintained during the life of the fluid
- Compatible with most seal materials.

Main Applications:

- Hydraulic and power transmission systems used in the steel and mining industries and other applications which call for a fire resistant hydraulic fluid.
- Die casting Machines
- Billet Loaders
- Electric Arc Furnaces
- Forging Presses
- Welding Robots
- Continuous Casting Machines
- Hydraulic Presses
- Extrusion Presses.

Compatibility & Miscibility:

Seals:

- Butyl, Viton *Ethylene / Propylene

Paints:

- Epoxy resin paints are compatible

Metals:

- Satisfactory with common constructional metals. Aluminium and its alloys should be hard anodized and not used as bearing surfaces

Contamination with Mineral Oils:

- The presence of up to 0.5% of mineral oil will not affect the properties of Irus Fluid DR but a greater degree of contamination will affect its fire-resistant properties, above 5% of mineral oil will seriously detriment the fire-resistant properties of Irus Fluid DR and therefore this level of contamination or above must result in the fluid being replaced. Phosphate Ester and contamination with mineral oils should therefore be avoided.

* Contact seal suppliers for their advice

Shell Omala Oil F 320

Premium Quality Industrial Gear Oils

Shell Omala F Oils are premium quality, lead-free, extreme-pressure oils designed, primarily, for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears and other industrial applications. They are formulated using high viscosity index, solvent refined, base oils, and incorporate a special sulphur-phosphorus additive to provide an extreme pressure performance significantly better than that provided by leaded gear oils.

Performance, Features & Benefits:

- Excellent load carrying and anti-friction characteristics
- Outstanding oxidation and thermal stability
- Effective corrosion inhibition
- Resistant to micro-pitting
- Lead free
- Excellent water shedding properties.

Main Applications:

- Steel gear transmissions
- Industrial gear drives where a full EP performance is required
- Bearings
- Circulating and splash lubricated systems
- Shell Omala F should not be used for automotive hypoid fears. The appropriate Shell Spirax Oil should be used for this purpose.

Specifications, Approvals & Recommendations:

- Sufficient oxidation stability for a lifetime of 10, 000 hours or two years at 80^{0}C
- Flender Foam Test
- A pass in the FVA-54/II micro pitting (grey staining) test at load stage 10 at 90^{0}C
- A load stage 12 pass in the FZG double speed test (DIN 51354 Part 2).

Compatibility & Miscibility:

- Shell Omala F Oils are compatible with internal gearbox paints; also solid and liquid seals.

Shell Lubricants
Macro Distributor

Shell Omala S2 G 100

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended.

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati Machine P-76
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD
- DIN 51517 – Part 3 CLP.

Shell Omala S2 G 150

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati Machine P-77
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD
- DIN 51517 – Part 3 CLP.

Shell Lubricants
Macro Distributor

Shell Omala S2 G 150 (Fine)

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati Machine P-77
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD
- DIN 51517 – Part 3 CLP.

Shell Omala S2 G 220

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended.

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati Machine P-74
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD
- DIN 51517 – Part 3 CLP.

Shell Lubricants
Macro Distributor

Shell Omala S2 G 320

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended.

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati Machine P-59
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD
- DIN 51517 – Part 3 CLP.

Shell Omala S2 G 320 (Fine)

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended.

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati Machine P-59
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD
- DIN 51517 – Part 3 CLP.

Shell Lubricants
Macro Distributor

Shell Omala S2 G 460

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended.

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati P-35
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKC
- DIN 51517 – Part 3 CLP.

Shell Omala S2 G 1000

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Specifications, Approvals & Recommendations:

- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended.

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Shell Lubricants
Macro Distributor

Shell Omala S2 G 68

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati Machine P-63
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD
- DIN 51517 – Part 3 CLP.

Shell Omala S2 G 680

Industrial Gear Oils

Shell Omala S2 G oils are high quality extreme-pressure oils designed primarily for the lubrication of heavy duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer superior performance in gears.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S2 G oils are formulated using an effective sulphur-phosphorus additive system to provide an extreme pressure performance which allows trouble-free application in most enclosed industrial gearboxes using steel spur and helical gears
- Shelly Omala S2 G oils have an effective full extreme pressure (EP) additive system allowing them to be used in highly-loaded gear systems
- Shell Omala S2 G oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems

For highly loaded worm drives, Shell Omala S4 WE and Shell Morlina S4 B are recommended

For automotive hypoid gears, the appropriate Shell Spirax oil should be used

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured.

Specifications, Approvals & Recommendations:

- Fives Cincinnati Machine P-34
- AGMA EP 9005 – E02
- ISO 12925-1 Type CKD
- DIN 51517 – Part 3 CLP.

Shell Lubricants
Macro Distributor

Shell Omala S4 GX 150

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 GX is an advanced synthetic heavy duty industrial gear oil offering outstanding lubrication performance under severe operating conditions, including reduced friction, long service life and high resistance to micro-pitting for optimal gear protection.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

Wind turbines and other inaccessible installations

- Shell Omala S4 GX is particularly recommended for certain systems where extra long life is required, maintenance is infrequent or systems are inaccessible

Enclosed industrial gear systems

- Recommended for industrial reduction gear systems operating under sever operating conditions, such as high load, very low or elevated temperatures and wide temperature variations

Other applications

- Shell Omala S4 GX oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- For highly loaded worm drives the Shell Omala “W” series oils are recommended
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- David Brown S1.53.106
- Approved for wind turbine gearboxes by: Gamesa, Dongfang Wind Turbines, Dalian Heavy Industries and Sinovel
- ISO 12925-1 Type CKD
- US Steel 224
- DIN 51517-3 (CLP)
- ANSI/AGMA 9005-E02 (EP).

Shell Omala S4 GX 220

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 GX is an advanced synthetic heavy duty industrial gear oil offering outstanding lubrication performance under severe operating conditions, including reduced friction, long service life and high resistance to micro-pitting for optimal gear protection.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

Wind turbines and other inaccessible installations

- Shell Omala S4 GX is particularly recommended for certain systems where extra long life is required, maintenance is infrequent or systems are inaccessible

Enclosed industrial gear systems

- Recommended for industrial reduction gear systems operating under sever operating conditions, such as high load, very low or elevated temperatures and wide temperature variations

Other applications

- Shell Omala S4 GX oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- For highly loaded worm drives the Shell Omala “W” series oils are recommended
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- David Brown S1.53.106
- Approved for wind turbine gearboxes by: Gamesa, Dongfang Wind Turbines, Dalian Heavy Industries and Sinovel
- ISO 12925-1 Type CKD
- US Steel 224
- DIN 51517-3 (CLP)
- ANSI/AGMA 9005-E02 (EP).

Shell Lubricants
Macro Distributor

Shell Omala S4 GX 320

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 GX is an advanced synthetic heavy duty industrial gear oil offering outstanding lubrication performance under severe operating conditions, including reduced friction, long service life and high resistance to micro-pitting for optimal gear protection.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

Wind turbines and other inaccessible installations

- Shell Omala S4 GX is particularly recommended for certain systems where extra long life is required, maintenance is infrequent or systems are inaccessible

Enclosed industrial gear systems

- Recommended for industrial reduction gear systems operating under sever operating conditions, such as high load, very low or elevated temperatures and wide temperature variations

Other applications

- Shell Omala S4 GX oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- For highly loaded worm drives the Shell Omala “W” series oils are recommended
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- David Brown S1.53.106
- Approved for wind turbine gearboxes by: Gamesa, Dongfang Wind Turbines, Dalian Heavy Industries and Sinovel
- ISO 12925-1 Type CKD
- US Steel 224
- DIN 51517-3 (CLP)
- ANSI/AGMA 9005-E02 (EP).

Shell Omala S4 GX 460

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 GX is an advanced synthetic heavy duty industrial gear oil offering outstanding lubrication performance under severe operating conditions, including reduced friction, long service life and high resistance to micro-pitting for optimal gear protection.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

Wind turbines and other inaccessible installations

- Shell Omala S4 GX is particularly recommended for certain systems where extra long life is required, maintenance is infrequent or systems are inaccessible

Enclosed industrial gear systems

- Recommended for industrial reduction gear systems operating under sever operating conditions, such as high load, very low or elevated temperatures and wide temperature variations

Other applications

- Shell Omala S4 GX oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- For highly loaded worm drives the Shell Omala “W” series oils are recommended
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- David Brown S1.53.106
- Approved for wind turbine gearboxes by: Gamesa, Dongfang Wind Turbines, Dalian Heavy Industries and Sinovel
- ISO 12925-1 Type CKD
- US Steel 224
- DIN 51517-3 (CLP)
- ANSI/AGMA 9005-E02 (EP).

Shell Lubricants
Macro Distributor

Shell Omala S4 GX 680

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 GX is an advanced synthetic heavy duty industrial gear oil offering outstanding lubrication performance under severe operating conditions, including reduced friction, long service life and high resistance to micro-pitting for optimal gear protection.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

Wind turbines and other inaccessible installations

- Shell Omala S4 GX is particularly recommended for certain systems where extra long life is required, maintenance is infrequent or systems are inaccessible

Enclosed industrial gear systems

- Recommended for industrial reduction gear systems operating under sever operating conditions, such as high load, very low or elevated temperatures and wide temperature variations

Other applications

- Shell Omala S4 GX oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- For highly loaded worm drives the Shell Omala “W” series oils are recommended
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- David Brown S1.53.106
- Approved for wind turbine gearboxes by: Gamesa, Dongfang Wind Turbines, Dalian Heavy Industries and Sinovel
- ISO 12925-1 Type CKD
- US Steel 224
- DIN 51517-3 (CLP)
- ANSI/AGMA 9005-E02 (EP).

Shell Omala S4 WE 150

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 WE is an advanced synthetic heavy duty industrial worm drive gear oil formulated using speciality selected polyalkylene glycol base fluids and additives. It offers outstanding lubrication performance under severe operating conditions, including improved energy efficiency, long service life and high resistance to micro-pitting.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear protection
- Maintaining system efficiency.

Main Applications:

- Recommended for industrial worm gear reduction systems operating under sever operating conditions, such as high load, very low or elevated temperatures and wide temperature variations

Extended life systems

- Shell Omala S4 WE is particularly recommended for certain systems where maintenance is infrequent or systems are inaccessible (eg. yaw gears in wind turbine installations)

Other applications

- Shell Omala S4 WE oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- Shell Omala S4 WE is not recommended for the lubrication of components manufactured from aluminium or aluminium allows
- For highly loaded spur and helical gears the Shell Omala “G” series oils are recommended
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- DIN 51517-3 (CLP)
- Fully approved by Bongiflioli.

Compatibility & Miscibility:

- High quality epoxy paints are recommended, as polyalkylene glycols will tend to attack certain conventional paints. Shell Omala S4 WE has been found to be satisfactory with nitrile and Viton seal materials, although Viton seals are preferred

Shell Omala S4 WE 220

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 WE is an advanced synthetic heavy duty industrial worm drive gear oil formulated using speciality selected polyalkylene glycol base fluids and additives. It offers outstanding lubrication performance under severe operating conditions, including improved energy efficiency, long service life and high resistance to micro-pitting.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear protection
- Maintaining system efficiency.

Main Applications:

- Recommended for industrial worm gear reduction systems operating under sever operating conditions, such as high load, very low or elevated temperatures and wide temperature variations

Extended life systems

- Shell Omala S4 WE is particularly recommended for certain systems where maintenance is infrequent or systems are inaccessible (eg. yaw gears in wind turbine installations)

Other applications

- Shell Omala S4 WE oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- Shell Omala S4 WE is not recommended for the lubrication of components manufactured from aluminium or aluminium allows
- For highly loaded spur and helical gears the Shell Omala “G” series oils are recommended
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- DIN 51517-3 (CLP)
- Fully approved by Bongiflioli.

Compatibility & Miscibility:

- High quality epoxy paints are recommended, as polyalkylene glycols will tend to attack certain conventional paints. Shell Omala S4 WE has been found to be satisfactory with nitrile and Viton seal materials, although Viton seals are preferred

Shell Omala S4 WE 320

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 WE is an advanced synthetic heavy duty industrial worm drive gear oil formulated using speciality selected polyalkylene glycol base fluids and additives. It offers outstanding lubrication performance under severe operating conditions, including improved energy efficiency, long service life and high resistance to micro-pitting.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear protection
- Maintaining system efficiency.

Main Applications:

- Recommended for industrial worm gear reduction systems operating under sever operating conditions, such as high load, very low or elevated temperatures and wide temperature variations

Extended life systems

- Shell Omala S4 WE is particularly recommended for certain systems where maintenance is infrequent or systems are inaccessible (eg. yaw gears in wind turbine installations)

Other applications

- Shell Omala S4 WE oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- Shell Omala S4 WE is not recommended for the lubrication of components manufactured from aluminium or aluminium allows
- For highly loaded spur and helical gears the Shell Omala “G” series oils are recommended
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- DIN 51517-3 (CLP)
- Fully approved by Bongiflioli.

Compatibility & Miscibility:

- High quality epoxy paints are recommended, as polyalkylene glycols will tend to attack certain conventional paints. Shell Omala S4 WE has been found to be satisfactory with nitrile and Viton seal materials, although Viton seals are preferred

Shell Omala S4 Wheel 680

Advanced Synthetic Industrial Gear Oil

Shell Omala S4 Wheel is an advanced synthetic heavy duty industrial gear oil offering outstanding lubrication performance under severe operating conditions, including improved energy efficiency and long service life. It is recommended specifically for use in General Electric off-highway motorised wheels fitted to haul trucks used in mining applications.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

GE motorised wheel hubs:

- Specially suitable for the gearcases of General Electric motorised wheels fitted to haul trucks used in mining applications.

Enclosed industrial gear systems:

- For us in enclosed industrial reduction gear systems operating under severe operating conditions, such as high load, very low or elevated temperatures and wide temperature variations.

Other applications:

- Shell Omala S4 Wheel oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems.
- For highly-loaded worm drives the Shell Omala “W” series oils are recommended.
- For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

Specifications, Approvals & Recommendations:

- David Brown S1.53.106H
- US Steel 224
- DIN 51517-3 (CLP)

Approved by GE under GEK-30375H against the following:

- ISO 680 GE Specification D50E35E

Compatibility & Miscibility:

Seal & Paint Compatibility:

- Shell Omala S4 Wheel is compatible with all seal materials and paints normally specified for use with mineral oils.

Shell Mine Gear 1500

Special Application Industrial Gear Oils

Shell Omala S3 GP oils are specialist 'problem solving' lubricants developed to lubricate industrial gearboxes subject to extremely high and heavily shock loaded operations such as those found in steel, cement, mining and quarrying industries. There are formulated for use where ultra-high levels of extreme-pressure performance are required.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear & corrosion protection
- Maintaining system efficiency.

Main Applications:

- Shell Omala S3 GP oils are designed for use in enclosed industrial gear systems subject to severe operating conditions including high shock loading applications
- These oils can be used in older gear systems that may be damaged or misaligned. The extreme pressure performance provides additional protection in such applications
- Shell Omala S3 GP oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems
- For normal load applications the other Shell Omala "G" series oils recommended
- For automotive hypoid gears, the appropriate Shell Spirax oil should be used.

Specifications, Approvals & Recommendations:

- Textron Power Transmission (former David Brown) S1.53.101E
- Arcelor Mittal FT163
- ISO 12925-1 Type CKD
- ANSI/AGMA 9005-E02 (EP)
- DIN 51517-3 (CLP)
- Shell Omala S3 GP 1500 is included in the Bucyrus Certified Lubricants list.

Shell Naturelle S4 Gear Fluid 150

Special Purpose Biodegradable Synthetic Gear and Bearing Fluid

Shell Naturelle S4 Gear Fluid is an advanced synthetic fluid specifically developed for use in gearing applications such as thrusters and propulsion drives. Manufactured from fully saturated esters, Shell Naturelle S4 Gear Fluid is designed to offer superior load carrying performance whilst also being readily biodegradable with low ecotoxicity. Shell Naturelle S4 Gear Fluid is an Environmentally Acceptable Lubricant (EAL) according to the definitions of the US EPA 2013 Vessel General Permit.

Performance, Features & Benefits:

- High viscosity index
- Longer service life
- Load carrying and wear protection
- Maintaining system efficiency
- Readily biodegradable
- Low toxicity towards the environment
- Recommended for use in environmentally sensitive areas.

Main Applications:

- Marine propulsion drives, thrusters and controllable pitch propellers
- Industrial gears, bearings and other components in circulated and splash lubricated systems.

Specifications, Approvals & Recommendations:

- ISO 3448 VG 68 / 100 / 150
- USA EPA VGP compliant
- DIN 51517-3 CLP E 68 / 100 / 150
- ISO 14635 A20/8.3/90 > 13
- Holland Roerpropeller (ZF)
- Sperry Marine
- SKF Blohm & Voss
- Wartsila
- Aegir Marine
- Ecolabel licence DE / 027 / 135
- James Walker Seals.

Compatibility & Miscibility:

- Shell Naturelle Gear Fluids are miscible with mineral oils. However, in order to ensure that the environmental properties and performance of Shell Naturelle Gear Fluids are maintained, the system should be drained and flushed thoroughly when changing fluids
- Owing to the surface-wetting properties of EAL's, if the system previously contained mineral oil, deposits formed in the system during previous operation may be loosened and accumulate in the system filters. The filters should therefore be checked at regular intervals, especially after change-over. It is strongly recommended that an oil sample is taken from the system following change-over and analysed via Shell Rapid Lubricants Analysis service to confirm the new fluid charge is fit for use
- Shell Naturelle Gear Fluids are compatible with seal materials and paints normally specified for use with conventional mineral oils. However, advice should be sought from your OEM confirming suitability for use of Shell Naturelle Gear Fluid in your specific application.

Shell Naturelle S4 Gear Fluid 100

Special Purpose Biodegradable Synthetic Gear and Bearing Fluid

Shell Naturelle S4 Gear Fluid is an advanced synthetic fluid specifically developed for use in gearing applications such as thrusters and propulsion drives. Manufactured from fully saturated esters, Shell Naturelle S4 Gear Fluid is designed to offer superior load carrying performance whilst also being readily biodegradable with low ecotoxicity. Shell Naturelle S4 Gear Fluid is an Environmentally Acceptable Lubricant (EAL) according to the definitions of the US EPA 2013 Vessel General Permit.

Performance, Features & Benefits:

- High viscosity index
- Longer service life
- Load carrying and wear protection
- Maintaining system efficiency
- Readily biodegradable
- Low toxicity towards the environment
- Recommended for use in environmentally sensitive areas.

Main Applications:

- Marine propulsion drives, thrusters and controllable pitch propellers
- Industrial gears, bearings and other components in circulated and splash lubricated systems.

Specifications, Approvals & Recommendations:

- ISO 3448 VG 68 / 100 / 150
- USA EPA VGP compliant
- DIN 51517-3 CLP E 68 / 100 / 150
- ISO 14635 A20/8.3/90 > 13
- Kawasaki Heavy Industries
- Nakashima Propellers
- Holland Roerpropeller (ZF)
- Sperry Marine
- SKF Blohm & Voss
- Wartsila
- Aegir Marine
- IHC Sealing Solutions
- Ecolabel licence DE / 027 / 136.

Compatibility & Miscibility:

- Shell Naturelle Gear Fluids are miscible with mineral oils. However, in order to ensure that the environmental properties and performance of Shell Naturelle Gear Fluids are maintained, the system should be drained and flushed thoroughly when changing fluids
- Owing to the surface-wetting properties of EAL's, if the system previously contained mineral oil, deposits formed in the system during previous operation may be loosened and accumulate in the system filters. The filters should therefore be checked at regular intervals, especially after change-over. It is strongly recommended that an oil sample is taken from the system following change-over and analysed via Shell Rapid Lubricants Analysis service to confirm the new fluid charge is fit for use
- Shell Naturelle Gear Fluids are compatible with seal materials and paints normally specified for use with conventional mineral oils. However, advice should be sought from your OEM confirming suitability for use of Shell Naturelle Gear Fluid in your specific application.

Shell Naturelle S4 Gear Fluid 68

Special Purpose Biodegradable Synthetic Gear and Bearing Fluid

Shell Naturelle S4 Gear Fluid is an advanced synthetic fluid specifically developed for use in gearing applications such as thrusters and propulsion drives. Manufactured from fully saturated esters, Shell Naturelle S4 Gear Fluid is designed to offer superior load carrying performance whilst also being readily biodegradable with low ecotoxicity. Shell Naturelle S4 Gear Fluid is an Environmentally Acceptable Lubricant (EAL) according to the definitions of the US EPA 2013 Vessel General Permit.

Performance, Features & Benefits:

- High viscosity index
- Longer service life
- Load carrying and wear protection
- Maintaining system efficiency
- Readily biodegradable
- Low toxicity towards the environment
- Recommended for use in environmentally sensitive areas.

Specifications, Approvals & Recommendations:

- ISO 3448 VG 68 / 100 / 150
- USA EPA VGP compliant
- DIN 51517-3 CLP E 68 / 100 / 150
- ISO 14635 A20/8.3/90 > 13
- Wartsila
- IHC Sealing Solutions
- Ecolabel licence DE / 027 / 140
- Caterpillar Berg
- James Walker Seals.

Main Applications:

- Marine propulsion drives, thrusters and controllable pitch propellers
- Industrial gears, bearings and other components in circulated and splash lubricated systems.

Compatibility & Miscibility:

- Shell Naturelle Gear Fluids are miscible with mineral oils. However, in order to ensure that the environmental properties and performance of Shell Naturelle Gear Fluids are maintained, the system should be drained and flushed thoroughly when changing fluids
- Owing to the surface-wetting properties of EAL's, if the system previously contained mineral oil, deposits formed in the system during previous operation may be loosened and accumulate in the system filters. The filters should therefore be checked at regular intervals, especially after change-over. It is strongly recommended that an oil sample is taken from the system following change-over and analysed via Shell Rapid Lubricants Analysis service to confirm the new fluid charge is fit for use
- Shell Naturelle Gear Fluids are compatible with seal materials and paints normally specified for use with conventional mineral oils. However, advice should be sought from your OEM confirming suitability for use of Shell Naturelle Gear Fluid in your specific application.

Shell Turbo S4 GX 32

Premium based industrial steam, gas and combined cycle turbine lubricant for geared turbines

Shell Turbo S4 GX 32 is based on Gas-to-Liquid (GTL) technology and has been developed to meet the demands of the latest high efficiency turbine systems. Designed to offer outstanding, long term performance under the most severe operating conditions Shell Turbo GX 32 will minimise wear, deposit and sludge formation even under cyclic peak loading conditions.

Performance, Features & Benefits:

- Extended oil life
- Enhanced Equipment protection
- Enhanced System efficiency.

Main Applications:

Power generation combined cycle turbines

- Shell Turbo S4 GX 32 is used as the lubricating oil for main shaft bearings and mechanical gears as well as the governor oil in the turbine control valves in modern gas turbines

Further industrial applications

- Shell Turbo S4 GX 32 may also be used for other industrial application requiring a high performance gas turbine oil, such as the lubrication of turbo compressors.

Specifications, Approvals & Recommendations:

- ASTM 4304-13 Type I, II & III
- GB (China) 11120-2011, L-TSE, L-TGE and L-TGSE
- DIN 51515 Part 1 L-TDP & Part 2 L-TGP, 51524-2-HLP
- JIS K 2213:2006 Type 2
- ISO 8068:2006 L-TGF, 8068:2006 L-TGSE
- Shell Turbo S4 GX is approved by Siemens Power Generation, spec TLV 9013 04 and TLV 9013 05
- General Electric GEK 32568K, 46506e, 28143b, 101941a, 107395a and 120498
- Alstom HTGD 90 117 V0001 Z
- Dresser Rand 003-406-001 Type I & III
- Westinghouse 21 TO591 and 55125Z3 and Eng Spec_ DP21T-00000443
- Solar ES 9-224Y Class II
- MAN D&T SE TED 10000494596
- Shell Turbo S4 GX 32 meets the specification of Elliott Turbo-machinery X-18-0004
- Shell Turbo S4 GX 32 meets Siemens Turbo-machinery specifcations 1CW0047915, WN80003798, and report 65/0027
- Shell Turbo S4 GX meets Siemens Finspong MAT812109
- GE Oil and Gas - Appropriate Specification listed under document ITN52220.04
- ANSALDO TGO2-0171-E00000/B.

Shell Lubricants
Macro Distributor

Shell Turbo S4 GX 46

Premium based industrial steam, gas and combined cycle turbine lubricant for geared turbines

Shell Turbo S4 GX 46 is based on Gas-to-Liquid (GTL) technology and has been developed to meet the demands of the latest high efficiency turbine systems. Designed to offer outstanding, long term performance under the most severe operating conditions Shell Turbo GX 46 will minimise wear, deposit and sludge formation even under the cyclic peak loading conditions.

Performance, Features & Benefits:

- Extended oil life
- Enhanced equipment protection
- Enhanced system efficiency.

Main Applications:

Power generation combined cycle turbines

- Shell Turbo S4 GX 46 is used as the lubricating oil for main shaft bearings and mechanical gears as well as the governor oil in the turbine control valves in modern gas turbines

Further industrial applications

- Shell Turbo S4 GX 46 may also be used for other industrial application requiring a high performance gas turbine oil, such as the lubrication of turbo compressors.

Specifications, Approvals & Recommendations:

- ASTM 4304-13 Type I, II & III
- GB (China) 11120-2011, L-TSE, L-TGE and L-TGSE
- DIN 51515 Part 1 L-TDP & Part 2 L-TGP, 51524-2 HLP
- JIS K 2213:2006 Type 2
- ISO 8068:2006 L-TGF, 8068:2006 L-TGSE
- Shell Turbo S4 GX is approved by Siemens Power Generation, spec TLV 9013 04 and TLV 9013 05
- General Electric GEK 28143b
- Alstom HTGD 90 117 V0001 Z
- Dresser Rand 003-406-001 Type I & III
- Solar ES 9-224Y Class II
- MAN D&T SE TED 10000494596
- Shell Turbo S4 GX 46 meets Siemens Turbo-machinery specifcations 1CW0047915, WN80003798, and report 65/0027
- Shell Turbo S4 GX meets Siemens Finspong MAT 812109
- GE Oil and Gas - Appropriate Specification listed under document ITN52220.04
- ANSALDO TGO2-0171-E00000/B.

Shell Turbo S4 X 32

Premium based industrial steam, gas and combined cycle turbine lubricant.

Shell Turbo S4 X 32 is based on Gas-to-Liquid (GTL) technology and has been developed to meet the demands of the latest high efficiency turbine systems. Designed to offer outstanding, long term performance under the most severe operating conditions Shell Turbo S4 X 32 will minimise deposit and sludge formation even under cycle peak loading conditions.

Performance, Features & Benefits:

- Extended oil life
- Enhanced Equipment protection
- Enhanced System efficiency.

Main Applications:

Power and industrial steam, gas and combined cycle turbines

- Shell Turbo S4 X 32 is used as the lubricating oil of choice in modern steam, gas and combined cycle turbines. Note that some applications with highly loaded gearboxes require a lubricant with enhanced anti-wear performance – for these applications use Shell Turbo S4 GX.

Further industrial applications

- Shell Turbo S4 X 32 may also be used for other industrial applications requiring a high performance gas turbine oil, such as the lubrication of turbo compressors.

Specifications, Approvals & Recommendations:

Shell Turbo S4 X 32 meets and exceeds international specification and requirements of the major turbine manufacturers including:

- ASTM D4304-13 Type I & III
- GB (China) 11120-2011, L-TGA, L-TSA, L-TGSB
- DIN 51515 Part 1 L-TD & Part 2 L-TG
- ISO 8068, L-TGB and L-TGSB
- Shell Turbo S4 X 32 is approved by Siemens Power Generation, spec TLV 9013 04 and TLV 9013 05
- General Electric GEK 32568K, 46506e, 28143b, 107395a and 120498
- Alstom HTGD 90 117 V0001 Z
- Dresser Rand 003-406-001 type I & III
- Westinghouse 21 TO591 and 55125Z3 and Eng Spec_ DP21T-00000443
- Solar ES 9-224Y Class II
- Man D&T SE TED 10000494596
- Shell Turbo S4 X 32 meets the specification of Elliot Turbo-machinery X-18-0004
- GE Oil and Gas – Appropriate Specification listed under document ITN52220.04
- Shell Turbo S4 X 32 meets the requirements of MS04-MA-CL001 (Rev.4), MS04-MA-CL002 (Rev.4) and MS04-MA-CL005 (Rev.2).

Shell Turbo Oil T 32

High Quality Industrial Steam & Gas Turbine Oils

Shell Turbo Oils T have long been regarded as the industry standard turbine oil. Building on this reputation, Shell Turbo Oils T have been developed to offer improved performance capable of meeting the demands of the most modern steam turbine systems and light duty gas turbines, which require no enhanced anti-wear performance for the gearbox. Shell Turbo Oils T are formulated from high quality hydrotreated based oils and a combination of zinc-free additives that provide excellent oxidative stability, protection against rust and corrosion, low foaming and excellent demulsibility.

Performance, Features & Benefits:

- Strong control of oxidation
- High resistance to foaming and rapid air release
- Positive water-shedding properties
- Excellent rust and corrosion properties.

Main Applications:

Shell Turbo Oils T are available in ISO grades 32, 46, 68 and 100 and suited for application in the following areas:

- Industrial steam turbines and light duty gas turbines which require no enhanced anti-wear performance for the gearbox
- Hydroelectric turbine lubrication
- Numerous applications where strong control over rust and oxidation is required
- Centrifugal and axial, dynamic turbo-compressors and pumps where an R&O type or turbine oil is recommended.

Specifications, Approvals & Recommendations:

- Siemens Power Generation TLV 9013 04 and TLV 9013 05
- Alstom HTGD 90-117 V0001 Z
- Man Turbo SP 079984 D0000 E99
- Fives Cincinnati, LLC (formerly Cincinnati Machine): P-38
- General Electric GEK 28143b, GEK 32568k, GEK 46506e
- Siemens – Westinghouse 21T0591 and PD-55125Z3
- DIN 51515-1 L-TD and DIN 51515-2 L-TG
- ISO 8068:2006 L-TGA & L-TSA
- Solar ES 9-224Y Class II
- GEC Alstom NCA P50001A
- JIS K 2213:2006 Type 2
- ASTM D4304, Type I and Type III
- GB 11120-2011, L-TSA and L-TGA
- Indian Standard IS 1012:2002
- Skoda: Technical Properties Tp 0010P/97 use in steam turbines
- Alstom Power Hydro Generators (spec HTWT600050)
- Dresser Rand (spec 003-406-001)
- Siemens Turbo Compressors (spec 800 037 98)
- GE Oil and Gas – Appropriate Specification listed under document ITN 52220.04
- For special applications such as Ammonia or High Sulphur Syngas compressors with wet gas seals, please contact your Viva technical expert.

Shell Turbo Oil T 46

High Quality Industrial Steam & Gas Turbine Oils

Shell Turbo Oils T have long been regarded as the industry standard turbine oil. Building on this reputation, Shell Turbo Oils T have been developed to offer improved performance capable of meeting the demands of the most modern steam turbine systems and light duty gas turbines, which require no enhanced anti-wear performance for the gearbox. Shell Turbo Oils T are formulated from high quality hydrotreated based oils and a combination of zinc-free additives that provide excellent oxidative stability, protection against rust and corrosion, low foaming and excellent demulsibility.

Performance, Features & Benefits:

- Strong control of oxidation
- High resistance to foaming and rapid air release
- Positive water-shedding properties
- Excellent rust and corrosion properties.

Main Applications:

Shell Turbo Oils T are available in ISO grades 32, 46, 68 and 100 and suited for application in the following areas:

- Industrial steam turbines and light duty gas turbines which require no enhanced anti-wear performance for the gearbox
- Hydroelectric turbine lubrication
- Numerous applications where strong control over rust and oxidation is required
- Centrifugal and axial, dynamic turbo-compressors and pumps where an R&O type or turbine oil is recommended.

Specifications, Approvals & Recommendations:

- Siemens Power Generation TLV 9013 04 and TLV 9013 05
- Alstom HTGD 90-117 V0001 Z
- Man Turbo SP 079984 D0000 E99
- General Electric GEK 28143b
- Fives Cincinnati, LLC (formerly Cincinnati Machine): P-55
- General Electric GEK 117064
- DIN 51515-1 L-TD and DIN 51515-2 L-TG
- ISO 8068, L-TSA and L-TGA
- Solar ES 9-224Y Class II
- GEC Alstom NBA P50001A
- JIS K 2213:2006 Type 2
- ASTM D4304-13, Type I and Type III
- GB 11120-2011, L-TSA and L-TGA
- Indian Standard IS 1012:2002
- Skoda: Technical Properties Tp 0010P/97 use in steam turbines
- Alstom Power Hydro Generators (spec HTWT600050)
- Dresser Rand (spec 003-406-001)
- Siemens Turbo Compressors (spec 800 037 98)
- GE Oil and Gas – Appropriate Specification listed under document ITN 52220.04
- For special applications such as Ammonia or High Sulphur Syngas compressors with wet gas seals, please contact your Viva technical expert
- Andritz Hydro
- MAN D&T SE TED 10000494596
- ANSALDO TG02-0171-E00000/B.

Shell Lubricants
Macro Distributor

Shell Turbo Oil T 68

High Quality Industrial Steam & Gas Turbine Oils

Shell Turbo Oils T have long been regarded as the industry standard turbine oil. Building on this reputation, Shell Turbo Oils T have been developed to offer improved performance capable of meeting the demands of the most modern steam turbine systems and light duty gas turbines, which require no enhanced anti-wear performance for the gearbox. Shell Turbo Oils T are formulated from high quality hydrotreated based oils and a combination of zinc-free additives that provide excellent oxidative stability, protection against rust and corrosion, low foaming and excellent demulsibility.

Performance, Features & Benefits:

- Strong control of oxidation
- High resistance to foaming and rapid air release
- Positive water-shedding properties
- Excellent rust and corrosion properties.

Main Applications:

Shell Turbo Oils T are available in ISO grades 32, 46, 68 and 100 and suited for application in the following areas:

- Industrial steam turbines and light duty gas turbines which require no enhanced anti-wear performance for the gearbox
- Hydroelectric turbine lubrication
- Numerous applications where strong control over rust and oxidation is required
- Centrifugal and axial, dynamic turbo-compressors and pumps where an R&O type or turbine oil is recommended.

Specifications, Approvals & Recommendations:

- Alstom HTGD 90-117 V0001 Z
- Man Turbo SP 079984 D0000 E99
- Fives Cincinnati, LLC (formerly Cincinnati Machine): P-54
- General Electric GEK 28143b
- DIN 51515-1 L-TD
- ISO 8068:2006 L-TSA, L-TGA and L-THA
- JIS K 2213:2006 Type 2
- ASTM D4304-13, Type I
- GB 11120-2011, L-TSA and L-TGA
- Indian Standard IS 1012:2002
- Siemens Turbo Compressors (spec 800 037 98)
- For special applications such as Ammonia or High Sulphur Syngas compressors with wet gas seals, please contact your Viva technical expert.
- Andrtiz Hydro

Shell Turbo Oil T 100

High Quality Industrial Steam & Gas Turbine Oils

Shell Turbo Oils T have long been regarded as the industry standard turbine oil. Building on this reputation, Shell Turbo Oils T have been developed to offer improved performance capable of meeting the demands of the most modern steam turbine systems and light duty gas turbines, which require no enhanced anti-wear performance for the gearbox. Shell Turbo Oils T are formulated from high quality hydrotreated based oils and a combination of zinc-free additives that provide excellent oxidative stability, protection against rust and corrosion, low foaming and excellent demulsibility.

Performance, Features & Benefits:

- Strong control of oxidation
- High resistance to foaming and rapid air release
- Positive water-shedding properties
- Excellent rust and corrosion properties.

Main Applications:

Shell Turbo Oils T are available in ISO grades 32, 46, 68 and 100 suited for application in the following areas:

- Industrial steam turbines and light duty gas turbines which require no enhanced anti-wear performance for the gearbox
- Hydroelectric turbine lubrication
- Numerous applications where strong control over rust and oxidation is required
- Centrifugal and axial, dynamic turbo-compressors and pumps where an R&O type or turbine oil is recommended.

Specifications, Approvals & Recommendations:

- DIN 51515-1 L-TD
- ISO 8068:2006 L-THA
- ASTM D4304-13, Type I
- GB 11120-2011, L-TSA
- Indian Standard IS 1012:2002
- For special applications such as Ammonia or High Sulphur Syngas compressors with wet gas seals, please contact your Viva technical expert.

Shell Lubricants
Macro Distributor

Shell Morlina S2 B 150

Industrial Bearing and Circulating Oils

Shell Morlina S2 B oils are high performance oils designed to provide outstanding oxidation and water separation protection for most general industrial bearing and circulating oil system applications and certain other industrial applications which do not require oils with extreme pressure (EP) properties. These oils meet the requirements of the Morgan Construction Company and Danieli for common bearing oils.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Reliable wear and corrosion protection
- Maintaining system efficiency.

Main Applications:

- Machine circulation systems
- Oil lubricated systems. Suitable for most plain and rolling element bearings and general industrial applications
- Roll-neck bearings
- Enclosed industrial gear systems. Low or moderately loaded enclosed gears where EP performance is not required.

Specifications, Approvals & Recommendations:

- Morgan MORGOIL® Lubricant Specification New Oil (Rev. 1.1) (MORGOIL is a registered trademark of the Morgan Construction Company)
- Danieli Standard Oil 6.124249.F
- DIN 51517-1 - type C
- DIN 51517-2 - type CL.

Compatibility & Miscibility:

- Shell Morlina S2 B oils are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Morlina S2 B 220

Industrial Bearing and Circulating Oils

Shell Morlina S2 B oils are high performance oils designed to provide outstanding oxidation and water separation protection for most general industrial bearing and circulating oil system applications and certain other industrial applications which do not require oils with extreme pressure (EP) properties. These oils meet the requirements of the Morgan Construction Company and Danieli for common bearing oils.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Reliable wear and corrosion protection
- Maintaining system efficiency.

Main Applications:

- Machine circulation systems
- Oil lubricated systems. Suitable for most plain and rolling element bearings and general industrial applications
- Roll-neck bearings
- Enclosed industrial gear systems. Low or moderately loaded enclosed gears where EP performance is not required.

Specifications, Approvals & Recommendations:

- Morgan MORGOIL® Lubricant Specification New Oil (Rev. 1.1) (MORGOIL is a registered trademark of the Morgan Construction Company)
- Danieli Standard Oil 6.124249.F
- DIN 51517-1 - type C
- DIN 51517-2 - type CL.

Compatibility & Miscibility:

- Shell Morlina S2 B oils are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Lubricants
Macro Distributor

Shell Morlina S2 B 320

Industrial Bearing and Circulating Oils

Shell Morlina S2 B oils are high performance oils designed to provide outstanding oxidation and water separation protection for most general industrial bearing and circulating oil system applications and certain other industrial applications which do not require oils with extreme pressure (EP) properties. These oils meet the requirements of the Morgan Construction Company and Danieli for common bearing oils.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Reliable wear and corrosion protection
- Maintaining system efficiency.

Main Applications:

- Machine circulation systems
- Oil lubricated systems. Suitable for most plain and rolling element bearings and general industrial applications
- Roll-neck bearings
- Enclosed industrial gear systems. Low or moderately loaded enclosed gears where EP performance is not required.

Specifications, Approvals & Recommendations:

- Morgan MORGOIL® Lubricant Specification New Oil (Rev. 1.1) (MORGOIL is a registered trademark of the Morgan Construction Company)
- Danieli Standard Oil 6.124249.F
- DIN 51517-1 - type C
- DIN 51517-2 - type CL.

Compatibility & Miscibility:

- Shell Morlina S2 B oils are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Morlina S2 BL 10

Special Application Bearing and Circulating Oils

Shell Morlina S2 BL oils are special low viscosity, solvent refined mineral oils blended with zinc free additives, to provide extended performance in the high speed spindles of machine tools.

Performance, Features & Benefits:

- Shell Morlina S2 BL oils are formulated with a well proven rust and oxidation inhibitor package that provides high resistance to oxidation, caused by heat in the presence of air, water and metal catalysts, such as copper, and helps to prolong oil life and lower maintenance costs
- The special additives provide efficient anti-wear performance without reacting to the softer metals in bearings and enhance machine reliability

In addition the additive package enhances the oil's natural corrosion protective properties and helps to prolong bearing life

- The low viscosity components of these oils have been chosen to help promote the smooth running of high speed machine elements and minimize heat build up through frictional energy losses.

Main Applications:

- Machine bearing and circulating systems. Suitable for a range of machine lubrication systems that include oil lubricated plain and rolling element bearings
- High speed spindles. The low viscosity fluids (ISO grades 2, 5 and 10) are particularly suitable for the lubrication of high speed spindles in machine tools.

Specifications, Approvals & Recommendations:

- Cincinnati Machine P-62 (ISO VG 10)
- Shell Morlina S2 BL oils are designed to meet specifications requiring a premium quality, light viscosity oil for applications running at high speeds such as those found in high speed frames and automated machine tools.

Shell Lubricants
Macro Distributor

Shell Morlina S4 B 100

Advanced Bearing and Circulating Oils

Shell Morlina S4 B oils are high performance synthetic bearing and circulation lubricants, based on high performance base fluids. They offer outstanding lubrication performance under severe operating conditions, including improved energy efficiency and long service life even in severe operating conditions.

Performance, Features & Benefits:

- Long oil life – maintenance saving
- Excellent wear and corrosion protection
- Enhancing system efficiency.

Main Applications:

- Shell Morlina S4 B is recommended for systems including moderately loaded gearboxes, operating under sever conditions such as low or high temperatures or with wide temperature variations
- The long oil life of Shell Morlina S4 B makes it suitable for use in certain 'lubricated-for-life' systems
- Suitable for use in systems containing plain or rolling element bearings, including highly loaded bearings found in cement or quarrying applications.

Specifications, Approvals & Recommendations:

- Alfa Laval Group D gearbox applications
- Aeerzen Maschinenfabrick GmbH Blower Applications
- Baltimore Aircoil Gear Boxes
- Fives Cincinnati Various P applications
- David Brown Table H applications
- Emerson Power Transmission
- GEA West falia Separator GmbH
- Renold Gears (various applications)
- Sharpe E-series worm gear reducers
- Winsmith (Peerless-Winsmith Inc) worm gear reducer
- ISO 12925-1 Type CKS specification.

Compatibility & Miscibility:

Seal and Paint Compatibility

- Shell Morlina S4 B is compatible with all seal materials and paints normally specified for use with mineral oils

Change-over Procedure

- Shell Morlina S4 B is compatible with petroleum mineral oils and no special change-over procedure is necessary. However, to release the full benefits, it should not be mixed with other oils

It is also advisable to ensure that oil systems are clean and free from contamination to optimise potential service life.

Shell Morlina S4 B 150

Advanced Bearing and Circulating Oils

Shell Morlina S4 B oils are high performance synthetic bearing and circulation lubricants, based on high performance base fluids. They offer outstanding lubrication performance under severe operating conditions, including improved energy efficiency and long service life even in severe operating conditions.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Reliable wear and corrosion protection
- Enhancing system efficiency.

Main Applications:

- Shell Morlina S4 B is recommended for systems incuding moderately loaded gearboxes, operating under severe conditions such as low or high temperatures or with wide temperature variations
- The long oil life of Shell Morlina S4 B makes it suitable for use in certain 'lubricated-for-life' systems
- Bearing and circulating oil systems. Suitable for use in systems containing plain or rolling element bearings, including highly loaded bearings such as those found in cement or quarrying applications.

Specifications, Approvals & Recommendations:

- Alfa Laval Group D gearbox applications
- Aerzen Maschinenfabrik GmbH Blower Applications
- Baltimore Aircoil Gear Boxes
- David Brown Table H applications
- Emerson Power Transmission
- GEA Westfalia Separator GmbH
- Renold Gears (various applications)
- Sharpe E-series worm gear reducers
- Winsmith (Peerless-Winsmith Inc) worm gear reducer
- ISO 12925-1 Type CKS specification
- Cincinnati Machine Various P applications.

Compatibility & Miscibility:

- Shell Morlina S4 B is compatible with all seal materials and paints normally specified for use with mineral oils
- Shell Morlina S4 B is compatible with petroleum mineral oils and no special change-over procedure is necessary. However, to realise the full benefits, it should not be mixed with other oils
- It is also advisable to ensure that oil systems are clean and free from contamination to optimise potential service life.

Shell Lubricants
Macro Distributor

Shell Morlina S4 B 220

Advanced Bearing and Circulating Oils

Shell Morlina S4 B oils are high performance synthetic bearing and circulation lubricants, based on high performance base fluids. They offer outstanding lubrication performance under severe operating conditions, including improved energy efficiency and long service life even in severe operating conditions.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Reliable wear and corrosion protection
- Enhancing system efficiency.

Main Applications:

- Shell Morlina S4 B is recommended for systems that include moderately loaded gearboxes, worm gear drives, vacuum pumps, and gearboxes with internal backstops subjected extreme temperature variations.
- The long oil life of Shell Morlina S4 B makes it suitable for use in certain 'lubricated-for-life' systems
- Bearing and circulating oil systems. Suitable for use in systems containing plain or rolling element bearings, including highly loaded bearings such as those found in cement or quarrying applications.

Specifications, Approvals & Recommendations:

- Alfa Laval Group D gearbox application
- Aerzen Maschinenfabrik GmbH Blower Applications
- Baltimore Aircoil Gear Boxes
- David Brown Table H applications
- Emerson Power Transmission
- GEA Westfalia Separator GmbH
- Renold Gears (various applications)
- Sharpe E-series worm gear reducers
- Winsmith (Peerless-Winsmith Inc) worm gear reducer
- ISO 12925-1 Type CKS specification
- Cincinnati Machine Various P applications.

Compatibility & Miscibility:

- Shell Morlina S4 B is compatible with all seal materials and paints normally specified for use with mineral oils
- Shell Morlina S4 B is compatible with petroleum mineral oils and no special change-over procedure is necessary. However, to realise the full benefits, it should not be mixed with other oils
- It is also advisable to ensure that oil systems are clean and free from contamination to optimise potential service life.

Shell Corena S2 P 100

Reciprocating (Piston) Air Compressor Oil

Shell Corena S2 P is a high quality air compressor oil designed to deliver the lubrication performance for high pressure reciprocating compressors. It is suitable for most reciprocating air compressors running at up to 220^{0}C discharge temperatures at elevated pressures.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Outstanding wear protection
- Maintaining system efficiency
- Enhanced air line safety.

Main Applications:

- Shell Corena S2 P is suitable for use in industrial reciprocating air compressors operating with air discharge temperatures of up to 220°C
- Shell Corena S2 P may be used in breathing air compressors, provided subsidiary clean-up apparatus is used to ensure that the air produced is fit for breathing.

Specifications, Approvals & Recommendations:

- ISO 6743-3A- LDAA Normal Duty
- DIN 51506 VBL.

Compatibility & Miscibility:

- Shell Corena S2 P oils are compatible with all sealing materials commonly used in air compressors.

Shell Lubricants
Macro Distributor

Shell Corena S2 P 150

Reciprocating (Piston) Air Compressor Oil

Shell Corena S2 P is a high quality air compressor oil designed to deliver the lubrication performance for high pressure reciprocating compressors. It is suitable for most reciprocating air compressors running at up to 220ºC discharge temperatures at elevated pressures.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Outstanding wear protection
- Maintaining system efficiency
- Enhanced air line safety.

Main Applications:

- Shell Corena S2 P is suitable for use in industrial reciprocating air compressors operating with air discharge temperatures of up to 220ºC
- Shell Corena S2 P may be used in breathing air compressors, provided subsidiary clean-up apparatus is used to ensure that the air produced is fit for breathing.

Specifications, Approvals & Recommendations:

- ISO 6743-3A-L-DAB
- ISO 6743-3A-L DAA Normal Duty
- DIN 51506 VDL.

Compatibility & Miscibility:

- Shell Corena S2 P oils are compatible with all sealing materials commonly used in air compressors.

Shell Corena S2 P 68

Reciprocating (Piston) Air Compressor Oil

Shell Corena S2 P is a high quality air compressor oil designed to deliver the lubrication performance for high pressure reciprocating compressors. It is suitable for most reciprocating air compressors running at up to 220ºC discharge temperatures at elevated pressures.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Outstanding wear protection
- Maintaining system efficiency
- Enhanced air line safety.

Main Applications:

- Shell Corena S2 P is suitable for use in industrial reciprocating air compressors operating with air discharge temperatures of up to 220ºC
- Shell Corena S2 P may be used in breathing air compressors, provided subsidiary clean-up apparatus is used to ensure that the air produced is fit for breathing.

Specifications, Approvals & Recommendations:

- ISO 6743-3A- LDAA Normal Duty
- DIN 51506 VBL

Compatibility & Miscibility:

- Shell Corena S2 P oils are compatible with all sealing materials commonly used in air compressors.

Shell Lubricants
Macro Distributor

Shell Corena S3 R 46

Premium Rotary Air Compressor Oil

Shell Corena S3 R is a premium quality air compressor oil designed to deliver high performance lubrication of rotary sliding vane and screw air compressors. It uses an advanced additive system to provide excellent protection and performance for compressors running at up to 20 bar and 100ºC discharge temperatures with oil maintenance intervals of up to 6000 hours, under certain conditions.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving

Formulated to help:

- Resist formation of carbon deposits in sliding vane slots in vane compressors
- Resist formation of deposits on rotating components in screw compressors
- Resist thermal breakdown and deposit formation to maintain excellent internal surface cleanliness particularly in oil/air separator and coalescer systems
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Shell Corena S3 R is suitable for oil-flooded or oil-injected vane compressors, operating at pressures of up to 10 bar and with air discharge temperatures of up to 100ºC under certain conditions
- Suitable for oil flooded or oil injected, single or two-stage rotary compressors, operating at pressures of up to 20 bar and with air discharge temperatures of up to 100ºC under certain conditions.

Specifications, Approvals & Recommendations:

- ISO 6743:2003 (E) L-DAJ.

Compatibility & Miscibility:

- Shell Corena S3 R oils are compatible with seal materials specified for use with mineral oils.

Shell Corena S3 R 68

Premium Rotary Air Compressor Oil

Shell Corena S3 R is a premium quality air compressor oil designed to deliver high performance lubrication of rotary sliding vane and screw air compressors. It uses an advanced additive system to provide excellent protection and performance for compressors running at up to 20 bar and 100ºC discharge temperatures with oil maintenance intervals of up to 6000 hours, under certain conditions.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Shell Corena S3 R is suitable for oil-flooded or oil-injected vane compressors, operating at pressures of up to 10 bar and with air discharge temperatures of up to 100ºC under certain conditions
- Suitable for oil flooded or oil injected, single or two-stage rotary compressors, operating at pressures of up to 20 bar and with air discharge temperatures of up to 100ºC under certain conditions.

Specifications, Approvals & Recommendations:

- ISO 6743:2003 (E) L-DAJ.

Compatibility & Miscibility:

- Shell Corena S3 R oils are compatible with seal materials specified for use with mineral oils.

Shell Corena S4 P 68

Advanced Synthetic Reciprocating (Piston) Air Compressor Oil

Shell Corena S4 P is an advanced synthetic air compressor oil incorporating synthetic ester base fluids and a unique high performance additive system. It is designed to deliver the highest performance lubrication for high pressure reciprocating compressors running in excess of 220ºC discharge temperatures at elevated pressures.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Outstanding wear protection
- Maintaining system efficiency
- Enhanced air line safety.

Main Applications:

- Shell Corena S4 P is suitable for all industrial reciprocating air compressors, in particular those operating under severe conditions of air discharge temperatures in excess of 220ºC with continuous high delivery pressures
- Shell Corena S4 P may be used in breathing air compressors, provided subsidiary clean-up apparatus is used to ensure that the air produced is fit for breathing.

Specifications, Approvals & Recommendations:

- DIN 51506 VDL ISO/DP 6521-L-DAB - medium duty
- ISO 6743-3:2003 DAB - Severe duty
- EN 12021.

Compatibility & Miscibility:

- Shell Corena S4 P oils are fully miscible with mineral oils, although dilution with mineral lubricants will markedly reduce their performance
- Shell Corena S4 P, in common with other ester-based lubricants, is not compatible with all seal materials, and some older compressors may need to have the seals changed before they can be run on the new grades

Compatibility Guide : Acceptable

- High Nitrite content (SEB5)
- >36% acrylonitrile

Compatibility Guide : Majority Acceptable

- Medium nitrile content (SE70)
- 30 - 36% acrylonitrile

Compatibility Guide : Not recommended

- Low nitrile content
- <30% acrylonitrile.

Shell Corena S4 P 100

Advanced Synthetic Reciprocating (Piston) Air Compressor Oil

Shell Corena S4 P is an advanced synthetic air compressor oil incorporating synthetic ester base fluids and a unique high performance additive system. It is designed to deliver the highest performance lubrication for high pressure reciprocating compressors running in excess of 220ºC discharge temperatures at elevated pressures.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Outstanding wear protection
- Maintaining system efficiency
- Enhanced air line safety.

Main Applications:

- Shell Corena S4 P is suitable for all industrial reciprocating air compressors, in particular those operating under severe conditions of air discharge temperatures in excess of 220ºC with continuous high delivery pressures
- Shell Corena S4 P may be used in breathing air compressors, provided subsidiary clean-up apparatus is used to ensure that the air produced is fit for breathing.

Specifications, Approvals & Recommendations:

- DIN 51506 VDL ISO/DP 6521-L-DAB - medium duty
- ISO 6743-3:2003 DAB - Severe duty
- EN 12021.

Compatibility & Miscibility:

- Shell Corena S4 P oils are fully miscible with mineral oils, although dilution with mineral lubricants will markedly reduce their performance
- Shell Corena S4 P, in common with other ester-based lubricants, is not compatible with all seal materials, and some older compressors may need to have the seals changed before they can be run on the new grades

Compatibility Guide : Acceptable

- High Nitrite content (SEB5)
- >36% acrylonitrile

Compatibility Guide : Majority Acceptable

- Medium nitrile content (SE70)
- 30 - 36% acrylonitrile

Compatibility Guide : Not recommended

- Low nitrile content
- <30% acrylonitrile

Shell Corena S4 R 46

Advanced Synthetic Rotary Air Compressor Oil

Shell Corena S4 R is an advanced synthetic air compressor oil incorporating a unique high performance additive system. It is designed to deliver the highest performance lubrication of rotary sliding vane and screw air compressors. It uses an advanced additive system to provide excellent protection and performance for compressors running at pressures over 25 bar and in excess of 100ºC discharge temperatures with oil maintenance intervals of up to 12,000 hours, under certain conditions.

Performance, Features & Benefits:

- Long oil life - maintenance saving
- Outstanding wear protection
- Maintaining system efficiency
- Enhanced air line safety.

Main Applications:

- Shell Corena S4 R is suitable, under certain conditions, for oil-flooded or oil-injected vane compressors, singe or two-stage compressors, operating at pressures of in excess of 25 bar and with air discharge temperatures over 100ºC (including intermittent operation under these conditions)
- May also be used where exceptionally high ambient temperatures are found
- The product is recommended for use, under certain conditions, in ABB turbochargers fitted to low and medium speed diesel engines used in marine and power generation applications under certain conditions
- Perfectly suitable to cover applications where a synthetic bearing & circulating oil or R&O oil is required and will provide benefits due to increased temperature fluidity, and lowering equipment operating temperatures.

Specifications, Approvals & Recommendations:

- ISO 6743:2003 (E) L-DAJ.

Compatibility & Miscibility:

- Shell Corena S4 R oils are fully miscible with mineral oils, although through dilution with mineral lubricants will markedly reduce their performance. Care must be taken to avoid mixing Shell Corena S4 R with certain types of synthetic fluids.
- Shell Corena S4 R oils are compatible with seal materials specified for use with mineral oils.

Shell Corena S4 R 68

Advanced Synthetic Rotary Air Compressor Oil

Shell Corena S4 R is an advanced synthetic air compressor oil incorporating a unique high performance additive system. It is designed to deliver the highest performance lubrication of rotary sliding vane and screw air compressors. It uses an advanced additive system to provide excellent protection and performance for compressors running at pressures over 25 bar and in excess of 100ºC discharge temperatures with oil maintenance intervals of up to 12,000 hours, under certain conditions.

Performance, Features & Benefits:

- Long oil life - maintenance saving
- Outstanding wear protection
- Maintaining system efficiency
- Enhanced air line safety.

Main Applications:

- Shell Corena S4 R is suitable for oil-flooded or oil-injected vane compressors, singe or two-stage compressors, operating at pressures of in excess of 25 bar and with air discharge temperatures over 100ºC (including intermittent operation under these conditions)
- May also be used where exceptionally high ambient temperatures are found
- The product is recommended for use in ABB turbochargers fitted to low and medium speed diesel engines used in marine and power generation applications under certain conditions
- Perfectly suitable to cover applications where a synthetic bearing & circulating oil or R&O oil is required and will provide benefits due to increased temperature fluidity, and lowering equipment operating temperatures.

Specifications, Approvals & Recommendations:

- ISO 6743:2003 (E) L-DAJ
- Shell Corena S4 R 68 is approved by ABB for use in VTR turbochargers, with a maximum oil change interval of 5000 hours.

Compatibility & Miscibility:

- Shell Corena S4 R oils are fully miscible with mineral oils, although through dilution with mineral lubricants will markedly reduce their performance. Care must be taken to avoid mixing Shell Corena S4 R with certain types of synthetic fluids.
- Shell Corena S4 R oils are compatible with seal materials specified for use with mineral oils.

Shell Lubricants
Macro Distributor

Shell Gas Compressor Oil S1 P 150

Gas Compressor Oil

Shell Gas Compressor Oil S1 P provides reliable performance for cylinder lubrication of reciprocating compressor handling hydrocarbon gas at high pressure. They are compounded with polar or fatty oils which enable the lubricant to resist being washed off cylinder walls by the action of wet air or gas. Shell Gas Compressor Oil S1 P also resists the solvent action of hydrocarbon gases such as propane and butane, as well as certain organic chemicals such as ketones and aldehydes.

Performance, Features & Benefits:

- Extended maintenance intervals
- Resists wash-off by wet air or gas and chemical solvents to ensure continued lubrication and protection to help reduce wear and maintenance downtime and increase operational availability and efficiency.

Main Applications:

- Reciprocating compressors having separate cylinder lubrication systems
- Compression of wet air, wet hydrocarbon, natural gas or certain chemically active gases
- Use for pressures below 1000 psi
- Bearings and machine parts of equipment requiring compounded products
- These oils should not be used to lubricate the running gear or crankcases of compressors as the fatty oil can separate from the lubricant, forming deposits on the surfaces of the crankcase and plugging oil passages.

Compatibility & Miscibility:

- Shell Gas Compressor Oil S1 P may be used with most common seal and packing materials

Shell Gas Compressor Oil S3 PSN 220

Special Applications Natural/Sour Gas Compressor Oil

Shell Gas Compressor Oil S3 PSN are unique, synthetic blend lubricants designed for the total loss lubrication of cylinders of high pressure reciprocating compressors used in severe, wet and/or sour, natural gas service.

Performance, Features & Benefits:

- Outstanding wear protection
- Maintaining system efficiency.

Main Applications:

- Shell Gas Compressor Oil S3 PSN is designed for "once-through" cylinder lubrication of reciprocating compressors which use oil injection systems to lubricate cylinders and rod packings
- It provides premium performance in propane compression and has been proven in field tests to satisfactorily lubricate propane refrigeration cylinders with -30ºC suction temperatures
- Shell Gas Compressor Oil S3 PSN oils are ideal for break-in of compressor cylinders and rod packings

They are also suitable for use when compressing wet air, wet gases/steam or solvent gases such as propane, and organic chemicals like aldehydes and ketones.

Specifications, Approvals & Recommendations:

- Shell Gas Compressor Oil S3 PSN complies with requirements of Dresser Industries and most other manufacturers.

Compatibility & Miscibility:

- Shell Gas Compressor Oil S3 PSN is compatible with all sealing materials commonly used in gas compressors.

Shell Lubricants
Macro Distributor

Shell Heat Transfer Oil S2

High Performance Heat Transfer Fluid

Shell Heat Transfer Oil S2 is based on carefully selected, highly refined mineral oils chosen for their ability to provide superior performance in indirect closed fluid heat transfer systems.

Performance, Features & Benefits:

- Extended maintenance intervals
- System efficiency
- Wear protection.

Main Applications:

- Shell Heat Transfer Oil S2 can be used in high temperature continuous heat transfer equipment with the following application limits:
- Max. film temperature : 320°C
- Max. bulk temperature : 300°C.

Specifications, Approvals & Recommendations:

- Classified as ISO 6743-12 Family Q
- Meets DIN 51522 requirements.

Shell Refrigeration Oil S2 FR-A 68

Refrigerator Compressor Lubricant

Shell Refrigeration Oil S2 FR-A is a low miscibility compressor lubricant intended for use in refrigeration compressors using Ammonia refrigerant. It is formulated from specially refined paraffinic base oils in combination with additives selected to minimise system deposits and provide long service life.

Performance, Features & Benefits:

- System efficiency
- Extended maintenance intervals.

Main Applications:

Refrigerator compressors

- Shell Refrigeration Oil S2 FR-A is recommended for use in open, semi-open and hermetic compressors in domestic, commercial and industrial refrigeration systems. It can be used in both rotary and reciprocating compressor types

Refrigerant Compatibility

- Shell Refrigeration Oil S2 FR-A is recommended for use with ammonia (R717) based refrigeration systems where it offers excellent performance, even under high compressor discharge temperatures, or down to evaporation temperatures of -30°C
- It can also be used in systems using hydrocarbons such as propane (R290)
- Shell Refrigeration Oil S2 FR-A is not recommended for use with CFC, HCFC or HFC refrigerants such as R12, R22 or R134a.

Specifications, Approvals & Recommendations:

- Shell Refrigeration Oil S2 FR-A meets the requirements of DIN 51503 KAA and KE.

Compatibility & Miscibility:

Seal Compability

- Shell Refrigeration Oil S2 FR-A is compatible with all commonly used sealing materials designed for use with mineral oils

Lubricant Compatibility

- Shell Refrigeration Oil S2 FR-A is completely miscible with mineral oil, alkylated benzene and PAO based lubricants.

Shell Refrigeration Oil S4 FR-F 68

Advanced Synthetic Refrigerator Compressor Lubricant

Shell Refrigeration Oil S4 FR-F is a synthetic refrigeration lubricant with a polyol ester base fluid. It has been developed for use with R134a and other HFC refrigerants.

Performance, Features & Benefits:

- Extended maintenance intervals
- System efficiency
- Wear protection.

Main Applications:

Refrigerator compressors

- Shell Refrigeration Oil S4 FR-F is recommended for use in open, semi-open and hermetic compressors in domestic, commercial and industrial refrigeration systems. It can be used in both rotary and reciprocating compressor types

Refrigerant Compatibility

- Shell Refrigeration Oil S4 FR-F is recommended for use with R 134a and other types of HFC refrigerant

Seal Compatibility

- Shell Refrigeration Oil S4 FR-F is compatible with all sealing materials commonly used with HFC refrigerant systems.

Specifications, Approvals & Recommendations:

- Shell Refrigeration Oil S4 FR-F meets the requirements of DIN 51503 KD.

Shell Refrigeration Oil S4 FR-V 68

Advanced Synthetic Refrigerator Compressor Lubricant

Shell Refrigeration Oil S4 FR-V is a synthetic refrigeration lubricant based on alkylated benzenes. It offers a universal solution to the lubrication requirements of most refrigeration compressors and is compatible with all commonly used refrigerants with the exception of HFCs.

Performance, Features & Benefits:

- System efficiency
- Extended maintenance intervals.

Main Applications:

- Refrigerator compressors.

Specifications, Approvals & Recommendations:

- Shell Refrigeration Oil S4 FR-V meets the requirements of DIN 51503 KAA and KC.

Compatibility & Miscibility:

Refrigerant compatibility

Shell Refrigeration Oil S4 FR-V is designed for use with most commonly occurring refrigerants:

- Ammonia (R717) systems where it offers excellent performance, even under high compressor discharge temperatures or down to evaporation temperatures of -33ºC or lower
- Carbon dioxide (R744) systems
- CFC and HCFC systems (R12 and R22)
- Hydrocarbon systems such as propane (R290).

Seal compatibility

- Shell Refrigeration Oil S4 FR-V is compatible with all commonly used sealing materials used with mineral oils

Lubricant compatibility

- Shell Refrigeration Oil S2 FR-V is completely miscible with mineral oil, other alkylated benzene and PAO based lubricants.

Shell Lubricants
Macro Distributor

Shell Paper Machine Oil S3 M 150

Paper Machine Circulating Oils

Shell Paper Machine Oils S3 M are high performance oils based on modern ashless additive technology. They are designed to provide excellent all round protection for the diverse needs and conditions found in modern paper machines. They meet the requirements of Metso, SKF and Voith systems.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Reliable wear and corrosion protection
- Enhancing system efficiency.

Main Applications:

- There is extensive operator experience with Shell Paper Machine Oils S3 M in many applications especially in Metso and Voith paper machine circulating systems, which include the dry and wet ends of the machine along with the calender stacks
- Lubrication of bearings, gears and auxiliary equipment in the wet end and dryer sections of paper machines
- Hydraulic and lubrication systems in deflection-compensating rolls
- Enhanced protection of gears under severe operating conditions.

Specifications, Approvals & Recommendations:

- SKF (paper machine oils)
- Metso (paper machine oils)
- Voith VN 108
- DIN 51517-2 – type CLFAG FE-8 (120^{0}C)
- FZG load stage 12 (DIN 51354).

Compatibility & Miscibility:

- Shell Paper Machine Oils S3 M are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Paper Machine Oil S3 M 220

Paper Machine Circulating Oils

Shell Paper Machine Oils S3 M are high performance oils based on modern ashless additive technology. They are designed to provide excellent all round protection for the diverse needs and conditions found in modern paper machines. They meet the requirements of Metso, SKF and Voith systems.

Performance, Features & Benefits:

- Long oil life
- Maintenance saving
- Reliable wear and corrosion protection
- Enhancing system efficiency.

Main Applications:

- There is extensive operator experience with Shell Paper Machine Oils S3 M in many applications especially in Metso and Voith paper machine circulating systems, which include the dry and wet ends of the machine along with the calender stacks
- Lubrication of bearings, gears and auxiliary equipment in the wet end and dryer sections of paper machines
- Hydraulic and lubrication systems in deflection-compensating rolls
- Enhanced protection of gears under severe operating conditions.

Specifications, Approvals & Recommendations:

- SKF (paper machine oils)
- Metso (paper machine oils)
- Voith VN 108
- DIN 51517-2 – type CLFAG FE-8 (120^{0}C)
- FZG load stage 12 (DIN 51354).

Compatibility & Miscibility:

- Shell Paper Machine Oils S3 M are compatible with seal materials and paints normally specified for use with mineral oils.

Shell Diala S4 ZX-I

Premium Inhibited Electrical Insulating Oil

Shell Diala S4 ZX-I is the new electrical insulating oil from Shell designed to meet the challenges presented by the latest power transformers. It offers an extended oil life with the peace of mind of zero sulphur content.

Shell Diala S4 ZX-I is manufactured from zero suphur base oils produced using Shell's GTL (gas-to-liquid) technology. These base oils offer a high degree of compositional consistency and have an excellent response to anti-oxidant. In addition they are globally available and free from PCBs, DBDs and passivators.

Shell Diala S4 ZX-I meets both the established and new industry copper corrosion tests.

Performance, Features & Benefits:

- Extended oil life
- Transformer protection
- System efficiency.

Specifications, Approvals & Recommendations:

- IEC 60296 (2012): Table 2 Transformer Oil (I) (Inhibited oil)
- Section 7.1 ("Higher oxidation stability & low sulphur content").

Shell Tonna S3 M 68

Premium machine tool slideway oils

Shell Tonna S3 M oils are specially designed for the lubrication of machine tool slides, tables and feed mechanisms. Their enhanced tackiness and stick-slip characteristics are combined to offer superior frictional performance on slideways. They are specially recommended in cases where high prcision and low speed machines are used.

Performance, Features & Benefits:

- Excellent frictional properties
- Advanced technology
- Good slide adhesion
- Ready separation from water-miscible cutting fluids
- Excellent corrosion prevention characteristics.

Main Applications:

Machine tool slideways, tables and feed mechanisms

- Developed for use on a wide range of materials used for machine tool slideway surfaces, including cast iron and synthetic materials

Machine tool hydraulic systems

- Particularly recommended for machines which have a combined hydraulic and slideway lubrication system

Machine tool gearboxes and spindles

- Also suitable for gear and headstrock lubrication
- The lower viscosity grades are intended for horizontal slide lubrication. For vertical slides use Shell Tonna S3 M 220.

Specifications, Approvals & Recommendations:

- Fives Cincinnati P-47 (ISO 68)
- ISO 11158 / ISO 6743-4 HG
- ISO 12925-1 / ISO 6743-6 CKC
- ISO 19378 / ISO 6743-13 GA and GB
- CGLP Slideway Oils against DIN 51502.

Shell Tonna S3 M 220

Premium machine tool slideway oils

Shell Tonna S3 M oils are specially designed for the lubrication of machine tool slides, tables and feed mechanisms. Their enhanced tackiness and stick-slip characteristics are combined to offer superior frictional performance on slideways. They are specially recommended in cases where high prcision and low speed machines are used.

Performance, Features & Benefits:

- Excellent frictional properties
- Advanced technology
- Good slide adhesion
- Ready separation from water-miscible cutting fluids
- Excellent corrosion prevention characteristics.

Main Applications:

Machine tool slideways, tables and feed mechanisms

- Developed for use on a wide range of materials used for machine tool slideway surfaces, including cast iron and synthetic materials

Machine tool hydraulic systems

- Particularly recommended for machines which have a combined hydraulic and slideway lubrication system

Machine tool gearboxes and spindles

- Also suitable for gear and headstrock lubrication
- The lower viscosity grades are intended for horizontal slide lubrication. For vertical slides use Shell Tonna S3 M 220.

Specifications, Approvals & Recommendations:

- Fives Cincinnati P-50 (ISO 220)
- ISO 11158 / ISO 6743-4 HG
- ISO 12925-1 / ISO 6743-6 CKC
- ISO 19378 / ISO 6743-13 GA and GB
- CGLP Slideway Oils against DIN 51502.

Shell Ondina Oil 15

Medicinal white oils

Shell Ondina Oils are highly refined, non-additive, aromatic-free paraffinic white mineral oils complying with the stringent pharmacopoeia purity requirements. Ondina oils can be used in pharmaceutical, food packaging, cosmetic and other applications, where this high purity is required by legislation or important for the quality of the finished product.

Performance, Features & Benefits:

- High Purity
- Optimal quality control
- Excellent stability.

Main Applications:

Cosmetic and Pharmaceuticals

- Components in cosmetic creams, lotions, oils, toiletries, etc.

Food packaging

- Extender oil in polystyrene and other plastics, price labels

Technical applications and car components

- Carrier fluid and extender oil for a variety of high quality applications, where colour and stability is important. Suitable when PVC is replaced by TPE elastomers.

Toys and similar articles

- Extender oil in TPE elastomers (e.g. SBS, SEBS)

Machinery lubrication

- The use of medicinal white oil in direct and indirect food applications, e.g. as food additives or for food packaging, is regulated by international specifications supplemented by local legislation. These requirements may deviate from country to country and must be taken into account by the user.

Specifications, Approvals & Recommendations:

- European Pharmacopoeia 3rd Edition
- US Pharmacopoeia 29th and 30th Editions
- US FDA §172.878 (“White Mineral Oil”) for direct food contact
- US FDA §178.3620(a) for indirect food contact
- FDA specifications, where above specified oils are positively listed e.g.

  §173.340, §175.105, §175.210, §175.230, §175.300, §176.170, §176.180, §176.200, §176.210, §177.1200, §177.2260, §177.2600, §177.2800, §178.3120, §178.3570, §178.3740, §178.3910, §573.680
- UK ‘The Mineral Hydrocarbon in Food Regulations 1966’

Shell Ondina Oil 32

Medicinal white oils

Shell Ondina Oils are highly refined, non-additive, aromatic-free paraffinic white mineral oils complying with the stringent pharmacopoeia purity requirements. Ondina oils can be used in pharmaceutical, food packaging, cosmetic and other applications, where this high purity is required by legislation or important for the quality of the finished product.

Performance, Features & Benefits:

- High Purity
- Optimal quality control
- Excellent stability.

Main Applications:

Cosmetic and Pharmaceuticals

- Components in cosmetic creams, lotions, oils, toiletries, etc.

Food packaging

- Extender oil in polystyrene and other plastics, price labels

Technical applications and car components

- Carrier fluid and extender oil for a variety of high quality applications, where colour and stability is important. Suitable when PVC is replaced by TPE elastomers.

Toys and similar articles

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Machinery lubrication

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Specifications, Approvals & Recommendations:

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- FDA specifications, where above specified oils are positively listed e.g.
  §173.340, §175.105, §175.210, §175.230, §175.300, §176.170, §176.180, §176.200, §176.210, §177.1200, §177.2260, §177.2600, §177.2800, §178.3120, §178.3570, §178.3740, §178.3910, §573.680
- UK ‘The Mineral Hydrocarbon in Food Regulations 1966’

Shell Ondina Oil 68

Medicinal white oils

Shell Ondina Oils are highly refined, non-additive, aromatic-free paraffinic white mineral oils complying with the stringent pharmacopoeia purity requirements. Ondina oils can be used in pharmaceutical, food packaging, cosmetic and other applications, where this high purity is required by legislation or important for the quality of the finished product.

Performance, Features & Benefits:

- High Purity
- Optimal quality control
- Excellent stability.

Main Applications:

Cosmetic and Pharmaceuticals

- Components in cosmetic creams, lotions, oils, toiletries, etc.

Food packaging

- Extender oil in polystyrene and other plastics, price labels

Technical applications and car components

- Carrier fluid and extender oil for a variety of high quality applications, where colour and stability is important. Suitable when PVC is replaced by TPE elastomers.

Toys and similar articles

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Machinery lubrication

- The use of medicinal white oil in direct and indirect food applications, e.g. as food additives or for food packaging, is regulated by international specifications supplemented by local legislation. These requirements may deviate from country to country and must be taken into account by the user.

Specifications, Approvals & Recommendations:

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- US Pharmacopoeia 29th and 30th Editions
- US FDA §172.878 (“White Mineral Oil”) for direct food contact
- US FDA §178.3620(a) for indirect food contact
- FDA specifications, where above specified oils are positively listed e.g.
  §173.340, §175.105, §175.210, §175.230, §175.300, §176.170, §176.180, §176.200, §176.210, §177.1200, §177.2260, §177.2600, §177.2800, §178.3120, §178.3570, §178.3740, §178.3910, §573.680
- UK ‘The Mineral Hydrocarbon in Food Regulations 1966’
- Japanese Pharmacopoeia XIII
- European Directive 2002/72/EC for plastic materials coming into contact with foodstuffs.

AeroShell Grease 6

Designed to meet challenges

AeroShell Grease 6 is a general purpose grease composed of a mineral oil thickened with Microgel®, possessing good all-round properties within a limited range. It is inhibited against oxidation and corrosion and has good water resistance and low noise capability. The useful operating temperature range is –40ºC to +121ºC.

Main Applications:

• AeroShell Grease 6 is a general purpose airframe grease for use in antifriction bearings, gearboxes and plain bearings within the temperature range of –40ºC to +121ºC.

Specifications, Approvals & Recommendations:

• U.S.: Approved MIL-PRF-24139A, Meets MIL-G-7711A (Obsolete)
• British: Approved DEF STAN 91-12
• French: Equivalent DCSEA 382/A
• NATO Code: G-382
• Joint Service Designation: XG-271

AeroShell Grease 7

Designed to meet challenges

AeroShell Grease 7 is an advanced multi-purpose grease, composed of a synthetic oil thickened with Microgel®, possessing good load carrying ability over a wide temperature range. It is inhibited against corrosion and has excellent resistance to water.
The useful operating temperature range is –73ºC to +149ºC.

Main Applications:

- AeroShell Grease 7 satisfies nearly all the airframe grease requirements of turbine engined aircraft and also those of piston engined aircraft provided that seal incompatibility does not occur
- It is recommended for lubricating highly loaded gears, actuator screw mechanisms, etc., also for instrument and general airframe lubrication within the temperature range of –73ºC to +149ºC.

Specifications, Approvals & Recommendations:

- U.S.: Approved MIL PRF-23827C (Type II)
- COMAC Approved to QPL-CMS-OL-302

Compatibility & Miscibility:

- AeroShell Grease 7 contains a synthetic ester oil and should not be used in contact with incompatible seal materials.
- AeroShell Grease 7 is a clay-based grease approved to MIL- PRF-23827C Type II; it should not be mixed with soap-based greases approved to MIL-PRF-23827C Type I.

Greases

Applications

Greases

Applications

Shell GadusRail S2 Traction Motor Bearing Grease

High Performance Traction Motor Bearing Grease

Shell GadusRail S2 Traction Motor Bearing Grease is one of Shell's highest quality lithium soap based greases. It is manufactured to specifications that provide excellent mechanical stability and long service life. These properties are needed for many critical anti-friction bearing applications. Shell GadusRail S2 Traction Motor Bearing Grease is a NLGI Grade 3 grease formulated using mineral base oils.

Performance, Features & Benefits:

- Outstanding mechinical stability
- Long service life
- Friction Reducer
- Fill-for-life capability.

Main Applications:

- Traction motor bearings of General Motors Electromotive Diesel and General Electric locomotives
- Pre-packaged anti-friction bearings inteded for "life-time" service without relubrication, a feature highly desired by the railroad industry.

Specifications, Approvals & Recommendations:

- General Electric
- General Motors Electromotive Division (EMD)

Shell GadusRail S2 Wheel Flange Grease 2

High Performance Wheel-flange grease

Shell GadusRail S2 Wheel Flange greases are lithium soap greases fortified with a specifically formulated multi purpose additive package for use as railroad track lubricants. These greases may also find applications in construction, mining and agricultural equipment.

Performance, Features & Benefits:

- Shell GadusRail S2 Wheel Flange greases are lithium soap thickened greases made with highly refined base oils, a special EP additive package and 3% molybdenum disulfide
- Shell GadusRail S2 Wheel Flange 2 has been designed to improve the lubricity and durability of the grease under the conditions imposed by hot weather
- Enhanced wear protection of wheels and track
- Excellent heavy and shock load protection

Excellent adherence to track even under adverse weather conditions

- Suitability for a variety of track and wheel lubricator systems
- Special formulation to reduce product loss at the application site.

Main Applications:

- Shell GadusRail S2 Wheel Flange greases are specially formulated to meet the pumpability, adhesion, and load carrying requirements of a track lubricant. Additionally, Shell GadusRail S2 Wheel Flange greases are formulated to perform well when used on any equiptment subjected to conditions of high loads and temperature extremes and provide excellent resistance to rust and corrosion.

Specifications, Approvals & Recommendations:

- Shell GadusRail S2 Wheel Flange greases are suitable for conventional railroad trackside and/or wheel/flange lubrication systems designed to handle greases, including lubricators made by KLF Lubriquip (formerly Madison-Kipp), Bijur, Portec and Moore and Steele.

Shell Alvania Grease EPD

A Long-life Railroad Roller Bearing Grease

Shell Alvania Grease EPD is a long-life railroad grease with extreme pressure additives to provide higher load carrying capacity. This grease meets the requirements of AAR M-942-(Revised 1992).

Performance, Features & Benefits:

- Extended bearing life
- Water and corrosion protection
- Prolonged grease service life
- Simplified inventory

Main Applications:

- The Association of American Railways (AAR) have developed a grease specification AAR M-942 (Revised 1992), designed to eliminate field lubrication, so that they only have to grease bearings when rail cars are brought to the shop for wheel repair
- Shell Alvania EPD is specifically designed as a long life railway bearing grease meeting the above AAR requirements.

Specifications, Approvals & Recommendations:

- Association of American Railways AAR M-942 (Revised 1992).

Shell Gadus S2 OG 70

Superior Performance Open Gear Greases

Shell Gadus S2 OG greases are a range of premium quality lead and solvent free, full EP lubricants developed for the lubrication and protection of open gears and wire ropes subjected to extremes of ambient temperature and operating conditions.

Performance, Features & Benefits:

- Exceptional physical and mechanical
- Excellent anti-wear performance
- Superb load carrying capacity
- Water repellent
- Corrosion protection
- Environmental compliance

Specifications, Approvals & Recommendations:

- FLSmidth
- Norberg
- Ferry Capitain
- Falk
- Lincoln

Main Applications:

- Heavily loaded open gears
- Multi service lubricant
- Surface dressing of slow moving gears open to atmosphere
- Plain bearings, pivot pins/bushings and articulations found in earthmoving equipment
- Mooring, static and slow moving wire ropes
- Wide variety of heavy-duty mining and industrial applications.

Shell Gadus S2 OG 80

Superior Performance Open Gear Greases

Shell Gadus S2 OG greases are a range of premium quality lead and solvent free, full EP lubricants developed for the lubrication and protection of open gears and wire ropes subjected to extremes of ambient temperature and operating conditions.

Performance, Features & Benefits:

- Exceptional physical and mechanical
- Excellent anti-wear performance
- Superb load carrying capacity
- Water repellent
- Corrosion protection
- Environmental compliance

Specifications, Approvals & Recommendations:

- FLSmidth
- Norberg
- Ferry Capitain
- Falk
- Lincoln

Main Applications:

- Heavily loaded open gears, particularly those found in grinding mills, kilns, shovels, draglilnes, ship loaders, stackers and reclaimers and excavator applications.
- Multi service lubricant that can be used as the one grease (multi purpose and open gear) for the entire machine on most shovels, excavators and draglines (excluding electrical motor bearings)
- Surface dressing of slow moving gears open to atmosphere
- Plain bearings, pivot pins/bushings and articulations found in earthmoving equipment
- Mooring, static and slow moving wire ropes
- Wide variety of heavy-duty mining and industrial applications.

Shell Gadus S2 OG 85

Superior Performance Open Gear Greases

Shell Gadus S2 OG greases are a range of premium quality lead and solvent free, full EP lubricants developed for the lubrication and protection of open gears and wire ropes subjected to extremes of ambient temperature and operating conditions.

Performance, Features & Benefits:

- Exceptional physical and mechanical properties
- Excellent anti-wear performance
- Superb load carrying capacity
- Water repellent
- Corrosion protection
- Environmental compliance.

Specifications, Approvals & Recommendations:

- FLSmidth
- Ferry Capitain
- Lincoln

Main Applications:

- Heavily loaded open gears, particularly those found in grinding mills, kilns, shovels, draglilnes, ship loaders, stackers and reclaimers and excavator applications.
- Multi service lubricant that can be used as the one grease (multi purpose and open gear) for the entire machine on most shovels, excavators and draglines (excluding electrical motor bearings)
- Surface dressing of slow moving gears open to atmosphere
- Plain bearings, pivot pins/bushings and articulations found in earthmoving equipment
- Mooring, static and slow moving wire ropes
- Wide variety of heavy-duty mining and industrial applications.

Shell Gadus
S3 Repair

Premium Open Gear Running-in Grease Containing Solids

Shell Gadus S3 Repair is a high performance sprayable running-in Aluminium Complex Grease, based on a part sythetic base oil blend and contains micronised graphite as solid lubricant.

The product chemistry is designed to cause a well-controlled smoothening process to reduce surface roughness on new and damaged open gearing.

Performance, Features & Benefits:

Shell Gadus S3 Repair not only reduces surface roughness of first time operating open gears but also improves used tooth flanks surface with a “cleaning” and corrective effect allowing longer life operation.

The product can also be used in case of light tooth damage smoothing surface roughness on the load carrying tooth flanks and increasing the contact area.

- Superior running In performance
- Periodic smooth lapping of tooth profile
- Endorsed by leading Open Gear Manufacturers
- Shell Gadus S3 Repair is bitumen and solvent free.

Main Applications:

- For mining, cement, steel industries and power stations, open gears on grinding mills, rotary kilns and dryers
- Shell Gadus S3 Repair is a ready-to-use product, which can be applied through conventional automatic lubrication spraying systems or manual pressurised-air hand spraying equipment
- It is important to consult the appropriate consumption charts to determine the specified quantities of lubricant to apply. Incorrect consumption quantities could result in tooth damage.

Shell Gadus S3 OG 2

Premium Open Gear and Wire Rope Grease

Shell Gadus S3 OG 2 is primarily designed for applications in mining equipment, shovels and excavators in open cut operations. Shell Gadus S3 OG is based upon an Aluminium Complex soap thickener dispersed in a high viscosity base oil containing enhanced extreme pressure - antiwear chemistry.

Performance, Features & Benefits:

- Excellent load carrying capacity under severe operation conditions
- Very high mechanical and thermal stability
- Withstands severe operation conditions
- Maintains adhesive characteristic over time
- No addition of chlorinated & undesired heavy metals.

Main Applications:

- Open gears
- Stick
- Circle Rail and rollers
- Antifriction bearings
- Bushings

Specifications, Approvals & Recommendations:

- Liebherr Specification.

Shell Gadus S4 OG Clear Oil 20000

Advanced Open Gear and Wirerope Lubricant

Shell Gadus S4 OG Clear Oil 20000 is an advanced part-sythetic, non-bitumastic viscous lubricant specifically developed to satisfy the demands of heavily loaded open gearing.

Performance, Features & Benefits:

- High viscosity
- Gear inspections due to clear film
- Extreme pressure performance
- Pumpability.

Main Applications:

- Developed specifically for the lubrication of medium-size to large girth gear drives. It provides good adhesion, excellent resistance to high pressure and protection against wear
- Shell Gadus S4 OG Clear Oil incorporates synthetic oil with thickening effect and high viscosity mineral oils blended with extreme pressure additives to give a modern high performance open gear lubricant.

Shell Gadus S3 High Speed Coupling Grease

Premium Gear Coupling Grease

Shell Gadus S3 High Speed Coupling Grease is a special grease for flexible gear couplings. It is based on high viscosity mineral oil and a lithium complex soap thickener.

Performance, Features & Benefits:

- Resists separation
- Resists hardening.

Main Applications:

Shell Gadus S3 High Speed Coupling Grease is used for the grease lubrication of flexible gear couplings operating at a speed >300 RPM.

Shell Gadus S2 V100 2

High Performance Multi-purpose Grease

Shell Gadus S2 V100 2 is a general purpose grease based on a new lithium hydroxystearate soap thickener fortified with anti-oxidant, anti-wear and anti-rust additives.

Performance, Features & Benefits:

- Reliable high temperature performance
- Good oxidation and mechanical stablitity
- Good corrosion resistance characteristics
- Long storage life.

Main Applications:

- Rolling element and plain grease lubricated bearings
- Electric motor bearings
- Sealed-for-life bearings
- Water pump bearings

May be used under a wide range of operating conditions. They offer very significant advantages over conventional lithium greases at high temperature or in the presence of water.

A medium consistency grease designed, mainly, for general industrial lubrication. Ideal for centralised lubrication systems operating at normal temperatures.

Shell Gadus S2 V100 3

High Performance Multi-purpose Grease

Shell Gadus S2 V100 3 is a general purpose grease based on a new lithium hydroxystearate soap thickener fortified with anti-oxidant, anti-wear and anti-rust additives.

Performance, Features & Benefits:

- Reliable high temperature performance
- Good oxidation and mechanical stablitity
- Good corrosion resistance characteristics
- Long storage life.

Main Applications:

- Rolling element and plain grease lubricated bearings
- Electric motor bearings
- Sleaed-for-life bearings
- Water pump bearings

May be used under a wide range of operating conditions. They offer very significant advantages over conventional lithium greases at high temperature or in the presence of water.

A medium/hard high performance industrial grease, particularly recommended for the lubrication of electrical motor bearings..

Shell Gadus S3 T100 2

Premium Multi-purpose Grease

Shell Gadus S3 T100 greases are high technology greases designed to give optimum performance for grease lubrication in industrial bearings. They are based on mineral oil with a special diurea thickener to give long life, low wear and shear-stable properties at high temperatures. In high temperature applications Shell Gadus S3T100 greases will outperform even fully synthetic (PAO) lithium complex greases proposed in the market.

Performance, Features & Benefits:

- Outstanding life at high temperatures
- Excellent wear portection
- Excellent mechanical stability at high temperatures
- Excellent oxidation resistance
- Good protection against false brinnelling
- Low oil separation
- Excellent corrosion resistance
- Versatile
- Water resistant
- Lead and nitrate free
- High temperature performance
- Corrosion protection
- Load carrying capacity
- Re-lubrication extension
- Oxidation stability
- Water washout.

Main Applications:

Shell Gadus S3 T100 greases are particularly recommended for use in high temperature (160°C), lightly loaded industrial bearings. It is recommended for use where long operational life and extended re-greasing intervals are an important consideration.

Compatibility & Miscibility:

- Sealing

The rheology of Shell Gadus S3 T100 greases is such that at low shear rates and with heating the consistency increases. Consequently, in bearings operating at high temperatures the grease remains in place providing good sealing and continuous lubrication even in the presence of vibration.

Shell Gadus S5 T100 2

Advanced Multi-purpose Grease

Shell Gadus S5 T100 greases are a very high technology grease designed to give optimum performance for grease lubrication in industrial bearings. They are based on synthetic oil with a special diurea thickener to give long life, low wear and shear-stable properties at high temperatures.

Performance, Features & Benefits:

- Outstanding life at high temperatures
- Excellent wear portection
- Excellent mechanical stability at high temperatures
- Excellent oxidation resistance
- Low oil separation
- Excellent corrosion resistance
- Versatile
- Water resistant

Main Applications:

Shell Gadus S5 T100 greases are particularly recommended for use in high temperature up to 180ºC, lightly loaded industrial bearings.

Compatibility & Miscibility:

- Sealing

The rheology of Shell Gadus S5 T100 greases is such that at low shear rates and with heating the consistency increases. Consequently, in bearings operating at high temperatures the grease remains in place providing good sealing and continuous lubrication even in the presence of vibration.

Shell Gadus S2 V220 00

High Performance multi-purpose Extreme Pressure Grease

Shell Gadus S2 V220 greases are high quality multi-purpose, extreme-pressure greases based on a blend of high viscosity index mineral oils and a lithium hydroxystreate soap thickener and contain extreme-pressure and other proven additives to enhance their performance in a wide range of applications. Shell Gadus S2 V220 greases are designed for multi-purpose grease lubrication of rolling element and plain bearings as well as hinges and sliding surfaces such as those found in most industrial and transport sectors.

Performance, Features & Benefits:

- Good anti-wear and EP performance
- Improved mechanical stability
- Good resistance to water wash-out
- Oxidation stability.

Main Applications:

Shell Gadus S2 V220 00 greases are specifically designed for:

- Steel mill lubrication where a softer grease is necessary for specialised dispensing systems
- Gearbox applications where semi-fluid greases are required
- Centralised chassis lubrication systems on trucks and buses.

Shell Gadus S2 V220 0

High Performance multi-purpose Extreme Pressure Grease

Shell Gadus S2 V220 greases are high quality multi-purpose, extreme-pressure greases based on a blend of high viscosity index mineral oils and a lithium hydroxystreate soap thickener and contain extreme-pressure and other proven additives to enhance their performance in a wide range of applications. Shell Gadus S2 V220 greases are designed for multi-purpose grease lubrication of rolling element and plain bearings as well as hinges and sliding surfaces such as those found in most industrial and transport sectors.

Performance, Features & Benefits:

- Good anti-wear and EP performance
- Improved mechanical stability
- Good resistance to water wash-out
- Oxidation stability
- Anti-corrosion protection.

Main Applications:

Shell Gadus S2 V220 0 greases are specifically designed for:

- Steel mill lubrication where a softer grease is necessary for specialised dispensing systems

Shell Gadus S2 V220 1

High Performance multi-purpose Extreme Pressure Grease

Shell Gadus S2 V220 greases are high quality multi-purpose, extreme-pressure greases based on a blend of high viscosity index mineral oils and a lithium hydroxystreate soap thickener and contain extreme-pressure and other proven additives to enhance their performance in a wide range of applications. Shell Gadus S2 V220 greases are designed for multi-purpose grease lubrication of rolling element and plain bearings as well as hinges and sliding surfaces such as those found in most industrial and transport sectors.

Performance, Features & Benefits:

- Good anti-wear and EP performance
- Improved mechanical stability
- Good resistance to water wash-out
- Anti-corrosion protection
- Oxidation stability.

Main Applications:

Shell Gadus S2 V220 1 grease is designed for:

- Heavy duty bearings served by centralised dispensing equiptment
- Extreme pressure gear grease for applications at normal ambient temperature
- Low temperature greasing applications.

Shell Gadus S2 V220 2

High Performance multi-purpose Extreme Pressure Grease

Shell Gadus S2 V220 greases are high quality multi-purpose, extreme-pressure greases based on a blend of high viscosity index mineral oils and a lithium hydroxystreate soap thickener and contain extreme-pressure and other proven additives to enhance their performance in a wide range of applications. Shell Gadus S2 V220 greases are designed for multi-purpose grease lubrication of rolling element and plain bearings as well as hinges and sliding surfaces such as those found in most industrial and transport sectors.

Performance, Features & Benefits:

- Good anti-wear and EP performance
- Improved mechanical stability
- Good resistance to water wash-out
- Oxidation stability
- Good corrosion resistance charecteristics.

Main Applications:

Shell Gadus S2 V220 2 greases are designed for:

- Heavy duty bearings and general industrial lubrication

Shell Gadus S3 V220C 1

Premium multi-purpose Extreme-Pressure Grease

Shell Gadus S3 V220C greases are premium multi-purpose greases based on high viscosity index mineral oil and a lithium complex soap thickener. They contain the latest additives to offer excellent high temperature oxidation performance and other additives to enhance their anti-oxidation, anti-wear and anti-corrosion properties. Shell Gadus S3 V220C greases are especially suitable for bearings operating at high temperature under load.

Performance, Features & Benefits:

- Excellent mechanical stability even under vibrating conditions
- Enhanced extreme-pressure properties
- Good water resistance
- High dropping point
- Long operational life at high temperatures
- Effective corrosion protection.

Main Applications:

Shell Gadus S3 V220C greases are used for the grease lubrication of heavy-duty bearings used in machinery found in:

- Continuous casting
- Vibrating sieves
- Quarries
- Breakers
- Roller conveyors
- Automotive wheelbearings.

Specifications, Approvals & Recommendations:

- ASTM D4950-07 GC-LB

Shell Gadus S3 V220C 2

Premium multi-purpose Extreme-Pressure Grease

Shell Gadus S3 V220C greases are premium multi-purpose greases based on high viscosity index mineral oil and a lithium complex soap thickener. They contain the latest additives to offer excellent high temperature oxidation performance and other additives to enhance their anti-oxidation, anti-wear and anti-corrosion properties. Shell Gadus S3 V220C greases are especially suitable for bearings operating at high temperature under load.

Performance, Features & Benefits:

- Excellent mechanical stability even under vibrating conditions
- Enhanced extreme-pressure properties
- Good water resistance
- High dropping point
- Long operational life at high temperatures
- Effective corrosion protection.

Main Applications:

Shell Gadus S3 V220C greases are used for the grease lubrication of heavy-duty bearings used in machinery found in:

- Continuous casting
- Vibrating sieves
- Quarries
- Breakers
- Roller conveyors
- Automotive wheelbearings.

Specifications, Approvals & Recommendations:

- Meets ASTM D4950-07 GC-LB
- SEB 18 12 53

Shell Gadus S3 T220 2

Premium multi-purpose Extreme-Pressure Grease

Performance, Features & Benefits:

- Cost savings
- Peace of mind
- Convenience.

Main Applications:

- General engineering, steel, paper, aluminium, chemical and many others
- Recommended as an extreme pressure grease for highly loaded ball, roller and plain bearing applications at high temperatures where extended service life is required.

Proven in the following applications:

- Hot strip mills
- Electrical motors (large)
- Paper mill bearings (dry end).

Shell Gadus S5 V220 2

Advanced multi-purpose Extreme-Pressure Grease

Shell Gadus S5 V220 is an advanced performance grease for general transport and industrial applications. It is based on high viscosity index synthetic base oil and a lithium complex soap thickener. It contains additives against wear, oxidation and corrosion.

Performance, Features & Benefits:

- Excellent mechanical stability and water resistance
- Corrosion protection
- Enhanced extreme-pressure properties
- High dropping point
- Long operational life at both high and low temperatures
- Compatible with seals.

Main Applications:

- Shell Gadus S5 V220 is used for the grease lubrication of bearings in both transport and industrial applications, including also both the wet and dry ends of paper machines.

Specifications, Approvals & Recommendations:

- Meets ASTM D4950-07 GC-LB

Shell Gadus S2 V220AC 2

High Performance Multi-purpose Extreme Pressure Grease

Shell Gadus S2 V220AC greases are high quality multi-purpose greases based on high viscosity index mineral oil and a mixed lithium/calcium soap thickener. They contain extreme-pressure, anti-wear, anti-oxidation and anti-corrosion additives to enhance their performance in a wide range of applications.

Performance, Features & Benefits:

- Excellent mechanical stability even under vibrating conditions
- Good corrosion resistance
- Extended life at moderate temperatures
- Good oil separation.

Main Applications:

Heavy-duty plain and rolling element bearings operating in the following environments:

- Vibrating conditions
- Heavy load
- High temperature
- Shock
- Presence of water

Multi-purpose convenience, especially in the transport sector where product can be used for both wheel bearings and chassis lubrication of passenger cars, light trucks and heavy duty trucks. These greases are also suitable for construction equipment exposed to intense water washout.

Specifications, Approvals & Recommendations:

- ASTM D4950-07 GC-LB

Shell Gadus S2 A320 2

High Performance multi-purpose Extreme Pressure Grease

Shell Gadus S2 A320 greases are smooth textured, calcium based greases for industrial and marine applications at moderate temperatures requiring extreme pressure performance.

Performance, Features & Benefits:

- Good water resistance
- Safe handling
- Extreme pressure performance.

Main Applications:

- Plain and rolling bearings working under arduous conditions in the presence of water
- Stern tube bearings, cranes, davits, winches, windlass
- General wire rope or open gear lubrication
- Shell Gadus A320 greases are not recommended for rolling element bearings.

Compatibility & Miscibility:

- Shell Gadus S2 A320 greases are compatible with all normal mineral oil seal materials.

Shell Lubricants
Macro Distributor

Shell Gadus S2 V220AD 1

High Performance multi-purpose Grease With Solids

Shell Gadus S2 V220AD greases are high performance greases for the lubrication of bearings subjected to harsh conditions. They are based on high viscosity index mineral oil and a mixed lithium/calcium soap thickener and contain extreme-pressure, anti-oxidation, anti-corrosion and adhesion additives. They also contain solids to provide resistance to shock loading.

Performance, Features & Benefits:

- Good oxidation and mechanical stability
- Good corrosion resistance
- For shock loaded conditions
- Good adhesion properties
- Extreme pressure performance.

Main Applications:

- Shell Gadus S2 V220AD greases are recommended for the lubrication of shock loaded heavy duty bearings working in damp hostile conditions. They are well-suited for use in off-highway applications and also for the lubrication of fifth wheels.

Shell Gadus S2 V220AD 2

High Performance multi-purpose Grease With Solids

Shell Gadus S2 V220AD greases are high performance greases for the lubrication of bearings subjected to harsh conditions. They are based on high viscosity index mineral oil and a mixed lithium/calcium soap thickener and contain extreme-pressure, anti-oxidation, anti-corrosion and adhesion additives. They also contain solids to provide resistance to shock loading.

Performance, Features & Benefits:

- Good oxidation and mechanical stability
- Good corrosion resistance
- For shock loaded conditions
- Good adhesion properties
- Extreme pressure performance.

Main Applications:

- Shell Gadus S2 V220AD greases are recommended for the lubrication of shock loaded heavy duty bearings working in damp hostile conditions. They are well-suited for use in off-highway applications and also for the lubrication of fifth wheels.

Shell Lubricants
Macro Distributor

Shell Gadus S3 V460 2

Premium multi-purpose Heavy Duty Grease

Shell Gadus S3 V460 greases are premium, high temperature greases for heavy duty industrial applications. This product is based on high viscosity index mineral oil and a lithium complex soap thickener and contains the latest additives to offer excellent high temperature oxidation performance and other additives to enhance its anti-oxidation, anti-wear and anti-corrosion properties.

Performance, Features & Benefits:

- High base oil viscosity to meet leading OEM requirements for slow moving large bearings
- Excellent mechanical stability even under vibrating conditions
- Enhanced extreme pressure properties
- Excellent water resistance
- Effective corrosion protection
- High dropping point.

Main Applications:

Shell Gadus S3 V460 greases are used for the grease lubrication of heavy duty, slow moving bearings used in heavy industries.

- Steel (continuous casters, workroll bearings etc.)
- Cement
- Paper
- Chemical industry
- Mining.

Shell Gadus S5 T460 1.5

Advanced multi-purpose Heavy Duty Grease

Shell Gadus S5 T460 grease is a high performance, high temperature, long life grease for heavy duty industrial applications. It uses fully synthetic base stocks and the latest technology diurea thickener. It contains the latest additives to offer excellent high temperature oxidation performance and other additives to enhance its anti-oxidation, anti -wear and anti-corrosion properties. Shell Gadus S5 T460 grease is especially suitable for sealed & semi-sealed applications involving slow moving, heavy-duty bearings operating at high temperature and under severe loads.

Performance, Features & Benefits:

- High base oil viscosity to meet leading OEM requirements for slow moving large bearings
- Excellent resistance to high temperature & “heat soak”
- Enhanced extreme pressure properties
- Excellent water resistance
- High dropping point
- Effective corrosion protection.

Main Applications:

Shell Gadus S5 T460 grease can be used for the grease lubrication of heavy duty, slow moving bearings (both sealed & semi-sealed) used in machinery found in the following industries:

- Steel
- Cement
- Paper
- Wind power
- Chemical industy
- Mining

Shell Gadus S3 V460D 2

Premium multi-purpose Heavy Duty Grease With Solids

Shell Gadus S3 V460D greases are high performance high temperature greases for slow moving heavily loaded large bearings subject to shock loads. They are based on high viscosity index mineral oil and a lithium complex soap thickener. Apart from containing the latest additives to ensure excellent high temperature, anti corrosion & anti oxidation performance, they also contain MoS_2 to ensure the grease can handle shock loads.

Performance, Features & Benefits:

- High base oil viscosity for load carrying
- Excellent mechanical stability even under vibrating conditions
- Enhanced extreme-pressure properties & resistant to shock loads
- Excellent water resistance
- Effective corrosion protection
- High dropping point.

Main Applications:

Shell Gadus S3 V460D greases are used for the grease lubrication of heavy duty, slow moving bearings subject to shock loads found in the following industries:

- Mining
- Steel

Specifications, Approvals & Recommendations:

Shell Gadus S3 V460D is listed by several leading OEMs:

- Komatsu mining (Germany)
- Terex
- BE (certified)
- Dieffenbacher
- Konecranes
- CMI
- Flat Products Equipment
- Pfeiffer
- Voith Paper Environmental
- Meets the requirements of the 3% MoS_2 grease Caterpillar specification
- Rothe Erde

Shell Gadus S4 V460D 2

Advanced multi-purpose Heavy Duty Grease

Shell Gadus S4 V460D grease is a high performance high temperature grease for slow moving heavily loaded pins, bushes and large bearings subject to shock loads. They are based on PAO synthetic oil and high viscosity index mineral oil and a lithium complex soap thickener. Apart from containing the latest additives to ensure excellent high temperature, anti-corrosion and anti-oxidation performance, they also contain MoS_2 to ensure the grease can handle shock loads. The enhancement of PAO synthetic base oil allows the grease to be pumped and perform in lubrication systems at much lower temperatures.

Performance, Features & Benefits:

- High base oil viscosity to provide excellent load carrying performance
- Excellent mechanical stability even under vibrating conditions
- Enhanced extreme pressure properties & resistant to shock loads
- Excellent water resitance
- Effective corrosion protection
- High dropping point.

Main Applications:

Shell Gadus S4 V460D greases are used for the grease lubrication of heavy duty, slow moving pins and bushes and bearings subject to shock loads found in the mining and steel industries.

Shell Lubricants
Macro Distributor

Shell Gadus S3 V460XD 1

Premium multi-purpose Heavy Duty Grease With Extra Solids

Shell Gadus S3 V460XD greases are premium heavy duty greases designed for use in a wide range of industrial and mining applications. They are based on a high viscosity index mineral oil and lithium complex soap thickener. They also contain additives to offer excellent high temperature oxidation performance and enhanced extreme pressure, anti-wear and anti-corrosion properties. They also contain moldybdenum disulphide to provide additional resistance to shock loading.

Performance, Features & Benefits:

- Wide operating temperature range
- Prolonged grease service life
- Excellent mechanical stability
- For shock loaded conditions
- Enhanced extreme pressure and anti-wear properties
- Low water wash-out
- Effective corrosion protection.

Main Applications:

Shock loaded, heavy duty slow moving bearings and non-bearing applications, eg those found in large mobile mining equiptment.

Specifications, Approvals & Recommendations:

- Komatsu
- Komatsu Trucks
- Terex
- Liebherr Trucks
- P&H
- BE (certified)
- Caterpillar (exceeds specification)

Shell Gadus S3 V460XD 2

Premium multi-purpose Heavy Duty Grease With Extra Solids

Shell Gadus S3 V460XD greases are premium heavy duty greases designed for use in a wide range of industrial and mining applications. They are based on a high viscosity index mineral oil and lithium complex soap thickener. They also contain additives to offer excellent high temperature oxidation performance and enhanced extreme pressure, anti-wear and anti-corrosion properties. They also contain moldybdenum disulphide to provide additional resistance to shock loading.

Performance, Features & Benefits:

- Wide operating temperature range
- Prolonged grease service life
- Excellent mechanical stability
- For shock loaded conditions
- Enhanced extreme pressure and anti-wear properties
- Low water wash-out
- Effective corrosion protection.

Main Applications:

Shock loaded, heavy duty slow moving bearings and non-bearing applications, eg those found in large mobile mining equiptment.

- Heavy earth moving pins and bushes
- Turntables

Specifications, Approvals & Recommendations:

- Komatsu
- Komatsu Trucks
- Terex
- Liebherr Trucks
- P&H
- BE (certified)
- Caterpillar (exceeds specification)

Shell Gadus S2 V1000AD 2

High Performance multi-purpose Heavy Duty Grease With Solids

Shell Gadus S2 V1000AD 2 is a high performance grease for the lubrication of bearings subjected to the most arduous conditions. It is based on heavy duty part synthetic base oils and a mixed lithium/calcium soap thickener. It contains extreme pressure, anti-wear, anti-corrosion and adhesion additives. The addition of molybdenum disulphide provides additional resistance to shock loading.

Performance, Features & Benefits:

- Protects equiptment under the heaviest loads
- Longer grease life
- Excellent water resistance
- Superior adhesion.

Main Applications:

Shell Gadus S2 V1000AD 2 is recommended for the lubrication of severe duty applications even in damp and hostile conditions including:

- Heavy earth moving pins and bushes
- Turntables
- Slow moving industrial journal and rolling element bearings
- Particularly suited where flingoff, water and vibration are problems and heavy shock loads are experienced. This grease is not recommended for high speed bearings.

Shell Gadus S4 V2600AD 1.5

Advanced Plain Bearing Grease

Shell Gadus S4 V2600AD is a unique lithium/calcium soap thickened part synthetic grease with superior adhesion and load carrying properties. It is formulated specially for very large and slow moving bearings, slides, bushes and other heavy duty industrial applications.

Performance, Features & Benefits:

- Protects equipment under the heaviest loads
- Longer grease life
- Resists grease loss and corrosion
- Cleaner working environment.

Main Applications:

- Shell Gadus S4 V2600AD is recommended for the lubrication of sugar mill bearings, cement mill journals, plain bearings, pivot pins, slow speed cams and followers and open gears.
- Please note that Shell Gadus S4 V2600AD is not recommended for high speed bearings.

Shell Tactic EMV Gadus S3 T220 2

Ultimate Performance Extreme Pressure Diurea Grease

Performance, Features & Benefits:

Cost savings via:

- Reduced grease comsumption at high temperatures
- Reduced maintenance costs
- Lower total labour costs
- Avoidance of synthetic products on some seals
- Simplified maintenance programs.

Peace of mind via:

- Proven new polyurea technology
- No unexpected health & safety problems.

Convenience via:

- Use of the same grease whatever the lubrication mode.
- Guaranteed suitable lubrication of equipment world-wide.

Main Applications:

- General engineering, steel, paper, aluminium, chemical and many others

Recommended as an extreme pressure grease for highly loaded ball, roller & plain bearing applications at high temperatures where extended service life is required. Proven in the following applications:

- Hot strip mills
- Paper mill bearings (dry end)
- Electrical motors (large)

Shell Tactic EMV Gadus S3 V220C 2

Premium multi-purpose Extreme-Pressure Grease

Shell Gadus S3 V220C greases are premium multi-purpose greases based on high viscosity index mineral oil and a lithium complex soap thickener. They contain the latest additives to offer excellent high temperature oxidation performance and other additives to enhance their anti-oxidation, anti-wear and anti-corrosion properties. Shell Gadus S3 V220C greases are especially suitable for bearings operating at high temperature under load.

Performance, Features & Benefits:

- Excellent mechanical stability even under vibrating conditions
- Enhanced extreme-pressure properties
- Good water resistance
- High dropping point
- Long operational life at high temperatures
- Effective corrosion protection.

Main Applications:

- Shell Gadus S3 V220C greases are used for the grease lubrication of heavy-duty bearings used in machinery found in:
- Continuous casting
- Vibrating sieves
- Quarries
- Breakers
- Roller conveyors
- Automotive wheelbearings.

Specifications, Approvals & Recommendations:

- Meets ASTM D4950-07 GC-LB
- SEB 18 12 53

Shell Tactic EMV Gadus S3 V460D 2

Premium multi-purpose Heavy Duty Grease With Solids

Shell Gadus S3 V460D greases are high performance high temperature greases for slow moving heavily loaded large bearings subject to shock loads. They are based on high viscosity index mineral oil and a lithium complex soap thickener. Apart from containing the latest additives to ensure excellent high temperature, anti corrosion & anti oxidation performance, they also contain MoS_2 to ensure the grease can handle shock loads.

Performance, Features & Benefits:

- High base oil viscosity to provide excellent load carrying performance

Meets the recommended base oil viscosity recommended by leading OEMs

- Excellent mechanical stability even under vibrating conditions

Consistency retained over long periods, even in conditions of severe vibration

- Enhanced extreme pressure properties & resistant to shock loads

Excellent load-carrying performance enhanced by the presence of MoS_2

- Excellent water resitance

Ensures lasting protection even in the presence of large amounts of water

- Effective corrosion protection

Ensures components/bearings do not fail due to corrosion

- High dropping point

Resistant to high temperatures.

Main Applications:

Shell Gadus S3 V460D greases are used for the grease lubrication of heavy duty, slow moving bearings subject to shock loads found in the following industries:

- Mining
- Steel
- Paper mill bearings (dry end)

Shell Tactic EMV Gadus S5 T100 2

Premium Quality Industrial Bearing Grease

Shell Gadus S5 T100 greases are a very high technology grease designed to give optimum performance for grease lubrication in industrial bearings. They are based on synthetic oil with a special diurea thickener to give long life, long wear and shear-stable properties at high temperatures.

Performance, Features & Benefits:

- Outstanding life at high temperatures
- Excellent wear protection
- Excellent mechanical stability at high temperatures
- Excellent oxidation resistance
- Versatile
- Water resistant
- Lead and nitrite free
- High temperature performance
- Oxidation stability
- Corrosion protection.

Main Applications:

- Shell Gadus S5 T100 greases are particularly recommended for use in high temperature up to 180°C, lightly loaded industrial bearings. They are recommended for use where long operational life and extended re-greasing intervals are an important consideration.

Shell Lubricants
Macro Distributor

Coolants, Cleaning, & Ancillary Products

Applications

29.0 Coolants

30.0 Cleaning & Detergents

31.0 Ancillary Products

Viva Energy HD Premium N PG Pre-Diluted 50/50

Premium antifreeze, anti-boil and anti-corrosion pre-diluted, propylene glycol coolant/ antifreeze product ready to use directly in cooling systems.

Performance, Features & Benefits:

- Protection for diesel engines using a nitrited, conventional coolant
- Propylene Glycol based formulation reduces toxicity compared to mono-ethylene glycol based formulations
- Pre-diluted to an optimum 50:50 dilution with demineralized water for improved stability, freeze protection, and boil protection
- Amine and phosphate free
- Provides wet sleeve liner cavitation protection without an initial charge of SCA or coolant extender
- Provides appropriate corrosion protection to all coolant system metals including copper, solder, brass, steel, cast iron and aluminium
- Excellent shelf stability, 2 years
- Excellent life with proper monitoring.

Main Applications:

- Viva Energy HD Premium N PG Pre-Diluted 50:50 is a propylene glycol based coolant compatible with many other coolants. It is a pre-diluted coolant requiring no field dilution. It features propylene glycol for lowered toxicity. It is capable of extended life (up to 6 years, 12,000 hours, or 1,000,000km whichever comes first) without the use of SCAs. The need for SCAs should be monitored periodically
- Viva Energy HD Premium N PG Pre-Diluted 50:50 is phosphate and amine free. Viva Energy HD Premium N PG Pre-Diluted 50:50 is designed for heavy-duty diesel applications namely on-road truck, off-road mining, farm and marine applications

Specifications, Approvals & Recommendations:

Viva Energy HD Premium N PG Pre-Diluted 50:50 can be used in the following applications, meeting the performance requirements of each along with others requiring a fully formulated coolant:

- ASTM D3306, D4985, D6211
- Caterpillar
- Cummins
- Detroit Diesel
- Daimler Chrysler
- Ford HD Trucks
- Freightliner
- GM Heavy Truck
- Kenworth
- Landrover
- Mack Trucks
- MTU
- TMC RP 330
- New Holland
- PACCAR
- Peterbilt
- Perkins
- Saab-Scania
- Mercedes-Benz
- MAN
- Volvo Heavy Truck
- White Star

Shell Lubricants
Macro Distributor

Viva Energy HD Premium N Antifreeze/Coolant Pre-Diluted 50/50

Premium extended life, fully formulated, OAT-Hybrid, nitrited heavy duty ethylene glycol engine coolant pre-diluted and ready to use

Viva Energy HD Premium Coolant N Pre-Diluted 50/50 is a fully formulated extended life heavy duty ethylene glycol antifreeze coolant. The product is a hybrid coolant, containing the combination of organic additive technology inhibitors boosted with borate, nitrite, nitrate, molybdate and silicate inorganic corrosion inhibitors. It is a low silicate, phosphate-free, and amine-free coolant. It is suitable for heavy duty applications without supplemental coolant additives (SCAs) during the initial fill. Viva Energy HD Premium Coolant N Pre-Diluted 50/50 is Ready-to-Use. It requires no further dilution with water.

Performance, Features & Benefits:

- All-climate year round performance
- Extended life capability
- Field compatibility.

Main Applications:

- Heavy duty gasoline or diesel engine antifreeze.

Specifications, Approvals & Recommendations:

- ASTM D3306, D4985, D6210
- AS/NZS 2108.1:1997 “Type A”
- Caterpillar EC-1 (Sections 2.3-4.5 incl.)
- Cummins Bulletin 3666132
- Daimler Chrysler MS-9769
- Detroit Diesel 7SE298 / 93K217
- Freightliner 48-22880
- General Motors 1825M, 1899M, Heavy Truck
- JIS K 2234
- John Deere JDM H24
- Landrover
- Mack Truck 014GS17004
- MAN 324
- Mercedes-Benz DBL 7700
- MTU MTL 5048
- PACCAR CS0185
- Peterbilt 8502.002
- SAE J1034
- TMC RP 329
- Volvo

Viva Energy HD Premium N Antifreeze/Coolant Concentrate

Premium extended life, fully formulated, OAT-hybrid, nitrited heavy duty ethylene glycol engine Antifreeze concentrate

Viva Energy HD Premium N Antifreeze is a fully formulated extended life heavy duty ethylene glycol Antifreeze. The product is a hybrid Antifreeze, containing a combination of organic additive technology inhibitors boosted with borate, nitrite, nitrate, molybdate and silicate inorganic corrosion inhibitors. It is a low silicate, phosphate and amine free antifreeze. It is suitable for heavy duty applications without supplemental coolant additives (SCAs) during the initial fill. Viva Energy HD Premium N Antifreeze is a concentrate and should be diluted with water. For the best results, consideration should be given to use demineralised or de-ionized water if possible.

Performance, Features & Benefits:

- All-climate year round performance
- Extended life capability
- Field compatibility.

Main Applications:

- Heavy duty gasoline or diesel engine antifreeze.

Specifications, Approvals & Recommendations:

- ASTM D3306, D4985, D6210
- AS/NZS 2108.1:1997 “Type A”
- Caterpillar EC-1 (Sections 2.3-4.5 incl.)
- Cummins Bulletin 3666132
- Daimler Chrysler MS-9769
- Detroit Diesel 7SE298 / 93K217
- Freightliner 48-22880
- General Motors 1825M, 1899M, Heavy Truck
- JIS K 2234
- John Deere JDM H24
- Landrover
- Mack Truck 014GS17004
- MAN 324
- Mercedes-Benz DBL 7700
- MTU MTL 5048
- PACCAR CS0185
- Peterbilt 8502.002
- SAE J1034
- TMC RP 329
- Volvo

Shell Lubricants
Macro Distributor

Viva Energy GF Coolant Concentrate

Water based engine coolant that utilises organic acid technology (OAT).

This product is free of ethylene glycol, silicates, phosphates, borates, nitrates, nitrites and amines. It is fully compatible with other similarly formulated OAT coolants. The OAT corrosion inhibitors have shown little depletion from original levels during extensive laboratory and fleet testing.

When diluted to 7% it provides excellent protection in petrol, diesel and gas engines, in, buses, tractors, trucks, industrial equipment and mining equipment. When diluted to 5% with softened or demineralised water this product provides excellent cooling system protection for passenger cars It can be used where an antifreeze anti-boil product is not specified.

Performance, Features & Benefits:

- Excellent Engine Protection. Suitable for use in passenger and heavy duty road vehicles and mining equipment for petrol, diesel and gas engines. A universal use coolant designed to meet industry standard requirements for both automotive and heavy duty diesel applications.
- Long Service Life. In heavy duty applications - provides a service life of up to 4 years or 1,000,000km or 12,000 hours, whichever comes first In passenger cars it provides 3 years, 100,000km service life.
- Hard Water Compatible.

Specifications, Approvals & Recommendations:

Dilution Rates:

- For heavy duty applications : 7%
- For passenger cars (with softened or dimeralised water): 5%

Compatibility & Miscibility:

- Compatible with other long life organic acid technology (OAT) based engine coolants; for best performance it is recommended to flush the old coolant and replace entirely with premixed coolant at the desired dilution rates according to the application. It is also compatible with aluminium
- For best results, Viva Energy GF Coolant must NOT be mixed with conventional high pH, phosphate, borate, silicate containing coolants. While deleterious effects are not expected to be significant, the mixing of conventional coolants with Viva Energy GF Coolant will result in a lower than expected lifetime (change-over intervals).

Viva Energy
GF Coolant Premix

Water based engine coolant that utilises organic acid technology (OAT) that is pre-diluted and ready to use for multiple applications.

This product is free of ethylene glycol, silicates, phosphates, borates, nitrates, nitrites and amines. It is fully compatible with other similarly formulated OAT coolants. The OAT corrosion inhibitors have shown little depletion from original levels during extensive laboratory and fleet testing. This product provides excellent cooling system protection for petrol, diesel and gas engines, in passenger cars, buses, tractors, trucks, industrial equipment and mining equipment. It can be used where an antifreeze anti-boil product is not specified.

Performance, Features & Benefits:

- Excellent Engine Protection. Suitable for use in passenger and heavy duty road vehicles and mining equipment for petrol, diesel and gas engines. A universal use coolant designed to meet industry standard requirements for both automotive and heavy duty diesel applications.
- Long Service Life. In heavy duty applications - provides a service life of up to 4 years or 1,000,000km or 12,000 hours, whichever comes first In passenger cars it provides 3 years, 100,000km service life.
- Hard Water Compatible.

Compatibility & Miscibility:

- Compatible with other long life organic acid technology (OAT) based engine coolants; for best performance it is recommended to flush the old coolant and replace entirely with premixed coolant at the desired dilution rates according to the application. It is also compatible with aluminium
- For best results, Viva Energy GF Coolant must NOT be mixed with conventional high pH, phosphate, borate, silicate containing coolants. While deleterious effects are not expected to be significant, the mixing of conventional coolants with Viva Energy GF Coolant will result in a lower than expected lifetime (change-over intervals).

Shell Lubricants
Macro Distributor

Viva Energy Degreasing Fluid

Premium Degreaser

Viva Energy Degreasing Fluid is a premium performance degreasing fluid which is designed to meet the stringent requirements of an oil and grease solvent and still maintain premium safety standards. Viva Energy Degreasing Fluid incorporates a unique solvent base to penetrate oil and grease bound dirt. Viva Energy Degreasing Fluid also contains an emulsifier which permits easy removal with water.

Performance, Features & Benefits:

Safety:

- Viva Energy Degreasing Fluid has been reformulated with a unique low volatility, low flammability solvent (Flash Point 80ºC). Viva Energy Degreasing Fluid is a significantly safer product than conventional turpentine-based degreasers which have a lower flash point. Viva Energy Degreasing Fluid is much less likely to ignite when it is applied to hot surfaces. Because of its low volatility, the hazard of inhaling organic vapours is reduced.
- Premium performance in removal of oil and grease bound dirt.
- Premium performance in safety, through use of a high flash point and low volatility solvent.
- Product losses through evaporation are significantly reduced. This improves cost effectiveness and also reduces vapour inhalation.
- Easy removal with water.
- Pleasant pine odour ensures operator acceptance.

Main Applications:

- Viva Energy Degreasing Fluid may be applied by spraying, brushing or swabbing, followed by removal with water. Very dirty pieces should be soaked in Viva Energy Degreasing Fluid for 15 minutes to 1 hour (or longer if necessary) followed by removal with water.

Viva Energy Degreasing Fluid QB

Premium Multi-Purpose Quick Break Degreasing Fluid.

Viva Energy Degreasing Fluid QB is a powerful degreasing product specifically designed to remove heavy oils, grease and oily solids from a variety of hard surfaces used in a variety of indsturies. The fluid is formulated with specific surfactants allowing a very quick breaking time making it effective in soil removal where spearation of the oil and water phases is important, such as through interceptor pits.

Performance, Features & Benefits:

Excellent degreasing performance:

• The high degreasing efficiency of Viva Energy Degreasing Fluid QB arises from the carefully selected blend of solvent and surfactants. These act to penetrate and suspend oil, grease and associated dirt, which can be easily removed.

High Cutting Power:

• For effective removal of heavy oils, grease and soils with suspended and dissolved materials easily washed away with water.

Quick emulsion break:

• Reduces problems associated with discharge into interceptor pits and settling tank systems.

Low Odour Formulation:

• Ensures operators acceptance.

Main Applications:

Viva Energy Degreasing Fluid QB is particularly suitable for the following applications:

• Degreasing and pre-maintenance cleaning of both stationary and mobile equipment

• Equipment cleaning for inspections

• Machineary and engine degreasing

• Concrete floor and work area degreasing.

Viva Energy Degreasing Fluid QB may be applied by spraying, brushing or swapping, allowing time to epentrate, followed by removal with water. Very dirty pieces should be soaked for 15 minutes to 1 hour (or longer if necessary) followed by removal with water.

Degreasing in an open vat or bath, soak and brush and then rince with water.

For heavily soiled areas it should be applied neat with brushing to aid penetration.

Health, Safety and Environment:

• Viva Energy Degreasing Fluid QB is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

• Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

• Guidance on health and safety is available on the appropriate Material Safety Data Sheet which can be obtained from the Viva Energy Technical Help Desk

• Take used oil to an authorised collection point. A solvent trap must be used when removing Viva Energy Degreasing Fluid with water. The flushings should never be allowed to go into into drains.

Shell Lubricants
Macro Distributor

Viva Energy
Dobatex Platinum

A readily biodegradable, water based quick-break detergent for heavy duty mining and industrial applications. Viva Energy Dobatex Platinum is a premium performance phosphorus-free* detergent suitable for a wide range of heavy-duty applications.

Performance, Features & Benefits:

Excellent cleaning performance:

• Viva Energy Dobatex Platinum is highly effective on a wide range of dirt, oils and grease in both hard and soft water.

Quick break:

• Viva Energy Dobatex Platinum emulsifies grease and oil with water, then can rapidly form separate oil and water phases, which allows for quick and efficient operation of grease traps and interceptors.

Balanced stability and quick-break performance:

• Viva Energy Dobatex Platinum is uniquely formulated to provide the delicate balance in foaming stability which allows it to be used on all surfaces, even vertical surfaces, yet retain superior ability to separate quickly in interceptor pits into discrete oil and water layers.

Multi-purpose convenience:

• Providng top-tier performance with a phosphorus free formulation, Viva Energy Dobatex Platinum can be used to reduce the number of detergents used on site without compromise.

Reduced safety concerns:

• Being water based, readily biodegradable, non flammable and very low odour, Dobatex Platinum is ideal for use in workshops or in underground maintenance stations.

Environmental benefits:

• Phosphorus free*, Viva Energy Dobatex Platinum can be used without contributing to algal blooms caused by excess detergent phosphates. Viva Energy Dobatex Platinum is water based and classified as readily biodegradable, and contains no hydrocarbon solvents or caustic alkalis.

Main Applications:

• Viva Energy Dobatex Platinum is a premium performance detergent suitable for a wide range of cleaning requirements, including heavy-duty and light-duty mining equipment, heavy truck fleets and machinery and engine degreasing.

Viva Energy Dobatex Platinum is a quick break product enabling efficient and effective operation of grease traps and separators, delivery superior environmental outcomes.

Specifications, Approvals & Recommendations:

• Meets the requirements for readily biodegradability of a single organic substance or natural product when tested according to AS 4351.2 Biodegradability – Organic compounds in an aqueous medium: Determination by analysis of dissolved organic carbon (DOC).

Compatibility & Miscibility:

Viva Energy Dobatex Platinum can be used with all commercial high pressure cleaners and foaming systems.

*Formulation contains no phosphorus containing compounds.

Viva Energy Dobatex Gold

Water based multipurpose cleaning solution for truck, car and marine applications and heavy duty mining equipment.

Viva Energy Dobatex Gold is a water based, multi-purpose cleaning detergent suitable for a wide range of industrial and automotive applications including the heavier duty demands of mining equipment and fishing and trucking fleets through to routine janitorial cleaning.

Performance, Features & Benefits:

• Viva Energy Dobatex Gold effectively removes dirt, grease and grime from all hard surfaces, even vertical surfaces, where its stable foaming action allows greater penetration and more thorough cleaning

• Viva Energy Dobtaex Gold will not promote rust or deteriorate paintwork, polished surfaces, metal or glass. It has strong colouring for ease of identification even at low dilution levels. Viva Energy Dobatex Gold is formulated to provide good results even where water quality is poor.

Excellent cleaning performance:

• Highly effective on a wide range of dirts, oils and grease in both soft or hard water.

Multipurpose convenience:

• Dobatex Gold is a versatile cleaner which can be used to reduce the number of detergents required on site.

Reduced safety concerns:

• Being water based, readily biodegradable, non flammable and very low odour, Dobatex Gold is ideal for use in workshops in underground maintenance stations.

Readily biodegradable:

• Classified as readily biodegradable according to AS 4351 Biodgradability – Organic compounds in an aqueous medium, and contains no hydrocarbon solvents or caustic alkalis.

Compatibility & Miscibility:

Viva Energy Dobatex Gold can be used with all commercial high pressure cleaners and foaming systems.

Main Applications:

Viva Energy Dobatex Gold is highly adaptable to a wide range of cleaning requirements. One flexible product enables you to cut down on inventory, and with varying dilutions and application methods Viva Energy Dobatex Gold in effective and recommended for:

• Truck fleets, car and small commercial vehicles

• Fishing fleets and marine leisure craft

• Heavy-duty and light-duty mining equipment

• Machinery and engine degreasing

Routine and janitorial cleaning purposes such as:

• Flooring

• Commercial and home kitchens, and bathrooms

• Food processing equipment

• Abattoirs, fishing cooperatives, commercial food preparation areas

• General purpose office and office furniture cleaning solution

• Viva Energy Dobatex Gold is truly a multi-purpose detergent and cleaning fluid for many applications

Specifications, Approvals & Recommendations:

• Meets the requirements for ready biodegradability of a single organic substance or natural product when tested according to AS 4351.2 Biodegradability – Organic compounds in an aqueous medium: Determination by analysis of dissolved organic carbon (DOC).

Shell Lubricants
Macro Distributor

Viva Energy Dobatex Aqua Degreaser

A readily biodegradable water based degreasing agent for mining, automotive and industrial applications.

A readily biodegradable water based degreasing agent for mining, automotive and industrial applications. Viva Energy Dobatex Aqua Degreaser is a water based degreaser formulated specifically for the removal of oil and grease in demanding applications in the general engineering, automotive, mining and construction industries.

Performance, Features & Benefits:

- Viva Energy Dobatex Aqua Degreaser is a water based, quick break formulation designed to perform exceptionally well for organic residue removal in water based degreasing applications in parts and equipment washing
- Unlike most conventional degreasers, where a thin layer of hydrocarbon fluid may remain after cleaning, Viva Energy Dobatex Aqua Degreaser leaves a completely non-greasy surface
- Being water based, Viva Energy Dobatex Aqua Degreaser is a particularly effective degreaser for indoor use. Viva Energy Dobatex Aqua Degreaser has no flash point, increasing safety over many hydrocarbon degreasers
- Viva Energy Dobatex Aqua Degreaser is a particularly simple and effective readily biodegradable cleaner for nasty oil stains on driveway and workshop floors
- Excellent cleaning performance: Highly effective on a wide range of oils, grease and grime.
- Reduced safety concerns: Being water based, readily biodegradable, non flammable and with a pleasant citrus fragrance, Viva Energy Dobatex Aqua Degreaser is ideal for use in workshops or in underground mining applications.
- Quick break: A special feature of Viva Energy Dobatex Aqua Degreaser is its ability to emulsify grease and oil with water, then rapidly form separate oil and water phases. This property allows for speedy and efficient operation of grease traps and interceptors.
- Neutral pH: Near-neutral pH increases operator compatibility and reduces risk of damage to metals, paints, seals and most under bonnet material.
- Readily biodegradable: Classified as readily biodegradable according to AS 4351 Biodegradability – Organic compounds in an aqueous medium, and contains no hydrocarbon solvents or caustic alkalis.

Main Applications:

Viva Energy Dobatex Aqua Degreaser has been designed for the effective removal of grease and oil/dirt residues from:

- Engineering parts and equipment
- Automotive workshops and parts cleaning
- Mining equipment
- Mechanical parts
- Factory and driveway floors where frequent oil stains may occur.
- Viva Energy Dobatex Aqua Degreaser provides superior and cost-effective results.

Specifications, Approvals & Recommendations:

- Meets the requirements for ready biodegradability of a single organic substance or natural product when tested according to AS 4351.2 Biodegradability – Organic compounds in an aqueous medium: Determination by analysis of dissolved organic carbon (DOC).

Compatibility & Miscibility:

Dobatex Aqua Degreaser is suitable for use with commercial pressure cleaners, foamers or can be used with a simple ‘garden type’ spray applicator.

Shell Power Steering Fluid

Advanced automatic power steering fluid.

Shell Power Steering Fluid is a premium quality fluid designed to provide high performance in power steering systems.

Performance, Features & Benefits:

- Helps protect power steering unit components against wear
- Helps prevent rust and corrosion
- Protects against seal and hose deterioration.

Main Applications:

- Shell Power Steering Fluid is a premium quality fluid designed to provide high performance in power steering systems. It has been formulated to reduce power steering pump squeal even under severe conditions.
- Shell Power Steering Fluid offers high performance for virtually all power steering systems (see Applications) including those sepcifiying the use of automatic transmission fluids.
- Shell Power Steering Fluid helps prolong the life of power steering units. ATF is often used as Power Steering Fluid. Recommended for complete fluid rpelacement or top-off in most passenger cars and light duty trucks.

Specifications, Approvals & Recommendations:

Meets the service requirements for:

- DaimlerChrysler MS5931
- Ford ESW-M2C128-C and D
- GM 9985010
- Volkswagen TL-VW-570-26
- Navistar TMS6810
- Also suitable for use in Mazda, Mercedes-Benz, Subaru and Volvo

Note: Do not use in power steering systems, which require Honda Part No. 08208-99961.

The owner's service manual specifications should be followed for all applications.