



Aerospace Level Lubrication Protection

SINOPEC
LUBRICANTES

REPRESENTANTE EXCLUSIVO PARA CHILE Y PERÚ

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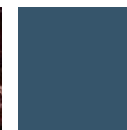
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SINOPEC Industrial Lubricants





Company Introduction

Sinopec Lubricant Co., Ltd. is a company specialized in lubricant established by China Petrochemical Corporation (hereinafter referred to as "Sinopec Group") to meet international competition in the lubricant market, which is headquartered at No. 6, West Road of Anningzhuang, Haidian District, Beijing, P.R.China.

In early 1980s, it took the initiative to launch the first Chinese lubricant brand "Sinopec" characterized by its aerospace lubrication technology that supported development of Chinese manufacturing industry and served the public. Ever since its establishment, the Company in the spirit of self-independent innovation has developed core technology of aerospace lubrication and provided lubrication assurance for successful launch of "Shenzhou" series manned spacecrafts and "Chang'e" series lunar exploration satellites, which is the sole "strategic partner of Chinese aerospace business".

Sinopec Lubricant Co., Ltd. has 12 lube oil & grease blending and manufacturing branches, 5 regional sales centers, 5 regional technical support centers, 5 provincial sales branches, 3 joint ventures, 1 overseas subsidiary and 9 overseas offices together with 4 product R&D institutes and 12 state recognized laboratories. With leading innovative and R&D capabilities and world-class production equipments and process technologies, the Company boasts over 2,000 types of products such as lubricants for internal combustion engine, industrial gear oils, hydraulic oils, greases, antifreezes, brake fluid, metal working fluids, Marine oils, lubricant additives, etc. divided in 21 categories, which are widely used in the fields of aviation, spacecraft, automobile, machinery, metallurgy, mining, petrochemical engineering, electronics, etc. Sinopec's lubrication products completely satisfy the requirements set by International Standard Organization (ISO), American Petroleum Institute (API), European Automobile Manufacturers' Association (ACEA), etc.

Aimed at its brand development targets of "high technology, superior quality and internationalization", the Company promotes "Great Wall" brand in China and "SINOPEC" branch out of China. Over the years, Sinopec lubricant has been ranking No. 1 in China lubricant industry with leading branch value. In addition, the Company promotes development of international market with the brand "SINOPEC" and has established sales networks in 50 countries and regions such as Southeast Asia, Australia, Europe, South America, Africa, etc.; in Singapore, UAE, the United States, South Africa, marine oil supply networks have been set up. In July, 2013, SINOPEC Singapore lubricant plant in Jurong Industrial Park, Singapore started operation, which achieved the output of both products and technologies simultaneously.

SINOPEC Lubricant Company has fostered a concept with customer satisfaction as the core, organizing its production and management in accordance with world's advanced structures and modes. With stable product quality, the company has completed ISO 16949 and HSE management system certification. Devoted to development of lubricant industry, the Company has actively participated in international competition and made efforts in seeking long-term cooperation relationship with relative industries to achieve mutual development and advancement.

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Industrial Gear Oil Products Series



L-CKT Fully Synthetic Heavy Duty Industrial Gear Oil

L-CKT fully synthetic heavy duty industrial gear oil is blended with synthetic type (PAO type) base oil with super high viscosity index and super level multi-functional additive by internationally advanced process. Its performance reaches world level.

Performance Characteristics

- Outstanding carrying ability and anti-wear performance, prolonging service life of equipment
- Outstanding anti-corrosion and anti-rust performance, effectively inhibiting occurrence of corrosion and wear on parts
- Excellent detergency, more suitable for lubrication of high-precision equipment
- Outstanding high/low temperature performance, providing overall protection for equipment in severe conditions

Technical Specification

The product meets the following specifications:

- Q/SH PRD151-2008
- ISO 12925-1 (L-CKT)
- AIST (US Steel) No.224
- AGMA 9005-E02 (EP)

Application

- Suitable for various heavy duty industrial gear units and other gears likely to cause vi-bration load, and suitable for both in circulation system and splash lubrication system
- Suitable for lubrication, mainly boundary lubrication of gears, in conditions of heavy duty, shock load or low speed
- Suitable for lubrication of closed gearboxes under extreme temperature conditions, ensuring startup and operation of gear unit in extremely low temperature conditions
- Suitable for some gearbox unit of long oil drain interval, especially for those with incon-venient drain conditions, or those not requiring special lubrication

Typical Data

Item	L-CKT Fully Synthetic Heavy Duty Industrial Gear Oil				
ISO viscosity grade	150	220	320	460	680
Kinematic viscosity (40°C), mm ² /s	145.6	205.3	296.1	433.9	655.5
Viscosity index	146	151	154	159	161
Flash point (COC), °C	244	264	258	270	268
Pour point, °C	-49	-49	-43	-34	-28
Rust prevention (synthetic seawater, method B)	No rust	No rust	No rust	No rust	No rust
Copper corrosion (100°C, 3h), Grade	1b	1b	1b	1b	1b
Timken test, OK Load, Lb	60	60	60	60	60



L-CKD Heavy Duty Industrial Gear Oil

L-CKD heavy duty industrial gear oil is blended with high quality base oil of high viscosity index and multi-functional additive. It has perfect carrying ability, ensuring smooth operation of the heavy duty gears. The product comprises several Grades such as 100, 150, 220, 320, 460, 680 and 1000 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Perfect carrying ability, ensuring smooth operation of gears, reducing scratch of gear surface, effectively reducing operation noise
- Good thermal stability, strong anti-oxidation, reducing formation of various harmful ox-ides and sludge
- Outstanding anti-corrosion performance, effectively inhibiting occurrence of corrosion and wear on parts
- Good oil-water separation ability and anti-foaming performance with long service life

Technical Specification

The product meets the following specifications:

- GB 5903-2011 (L-CKD)
- ISO 12925-1 (L-CKD)
- AIST (US Steel) No.224
- AGMA 9005-E02 EP

Application

- Suitable for lubrication of various closed gear transmission system working in severe conditions in such industries as steel, cement, power, mining and so on
- Suitable for circulation lubrication system combined spur gear, bevel gear, spiral bevel gear and bearing

Typical Data

Item	L-CKD Heavy Duty Industrial Gear Oil							
	68	100	150	220	320	460	680	1000
ISO viscosity grade	68	100	150	220	320	460	680	1000
Kinematic viscosity (40 °C), mm ² /s	68.24	98.76	150	217	313	432	662	1059
Viscosity index	101	92	92	93	92	97	103	114
Flash point (COC), °C	234	248	235	242	250	238	246	246
Pour point, °C	-15	-1	-12	-9	-9	-12	-12	-12
Copper corrosion (100°C, 3h), Grade	1b	1b	1b	1b	1b	1b	1b	1b
Wear scar diameter (1800r/min, 196N, 60min, 54°C), mm	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Timken test, OK Load, Lb	60	60	60	60	60	60	60	60



L-CKC Moderate Duty Industrial Gear Oil

L-CKC moderate duty industrial gear oil is blended with high quality base oil and multi-functional additive. It has good bearing ability, ensuring smooth operation of gears. The product comprises several grades such as 68, 100, 150, 220, 320, 460 and 680 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Good carrying ability, ensuring smooth operation of gears, reducing scratch of gear sur-face, effectively reducing operation noise
- Good thermal stability, strong anti-oxidation, reducing formation of various harmful oxides
- Good oil-water separation ability and anti-foaming performance with long service life

Technical Specification

The product meets the following specifications:

- GB 5903-2011 (L-CKC)
- ISO 12925-1 (L-CKC)
- AGMA 9005-E02
- DIN 51517 Part II CL

Application

- Suitable for lubrication of various light moderate duty industrial reducer and circulation lubrication system
- Suitable for closed gear drive devices used for those industries such as metallurgy, mining, cement, papermaking, sugaring, etc. with moderate duty.

Typical Data

Item	L-CKC Moderate Duty Industrial Gear Oil					
	100	150	220	320	460	680
ISO viscosity grade	100	150	220	320	460	680
Kinematic viscosity (40°C), mm ² /s	97.7	149.9	213.5	316.5	463.7	684.3
Viscosity index	91	92	94	94	98	104
Flash point (COC), °C	244	260	260	250	252	270
Pour point, °C	-18	-15	-15	-12	-10	-7
Copper corrosion (100°C, 3h), Grade	1b	1b	1b	1b	1b	1b
Rust prevention (synthetic seawater, method B)	No rust	No rust	No rust	No rust	No rust	No rust



L-CKM Heavy Duty Industrial Open Gear Oil

L-CKM heavy duty industrial open gear oil is blended with high quality base oil, multi-functional additive as well as solid lubrication material. Without heavy metal and chloridion, the product doesn't need organic solvent when used, reducing hazards to the environment and human in process of operation. It meets the requirements of environment protection, suitable for lubrication of open gear chain and cable.

The product comprises several grades such as 150, 220, 320 and 460 according to its kinematic viscosity at 100°C .

Performance Characteristics

- Good fluidity and convenient usage, providing sufficient lubrication for large-sized slowly running gears
- Designed aiming at the lubrication characteristics of open gears, with good adhesive strength, ensuring lubrication requirement of open gears
- Solid lubrication material provides protection in boundary lubrication condition, preventing metallic scuffing
- Outstanding anti-wear performance, providing effective protection for equipment, prolonging service life of equipment
- Non-solvent type and non-asphalt type product, without heavy metal and chlorine, reducing operation hazard, meeting current requirements of environment protection
- The product can be applied in advanced automatic injection lubrication device to efficient play oil performances, reduce usage amount and avoid the possibility of cross-contamination in oil lubrication system.

Technical Specification

The product meets the following specifications:

- Q/SH PRD153-2008
- ISO 6743-6 L-CKM

Application

- Suitable for lubrication of various open running gears in air-swept coal mill, rotary kiln, clinker tube mill, sintering material mixer, overflow mill, debarker for industries such as cement, power, steel and so on
- Suitable for lubrication of open or semi-closed gears running in slow speed, and of steel cable in severe and exposed work conditions
- Suitable for lubrication device for open gear transmission equipped with automatically spray lubrication device of such brands as Lincoln, FARVAL, Vogel and so on

Typical Data

Item	L-CKM Heavy Duty Industrial Open Gear Oil			
	150	220	320	460
ISO viscosity grade	150	220	320	460
Kinematic viscosity (100°C), mm ² /s	140.2	236.2	332.2	482.1
Flash point (COC), °C	238	236	236	240
Pour point, °C	-9	-9	-9	-9
Rust prevention (distilled water, method A)	No rust	No rust	No rust	No rust

Hydraulic Oil Products Series



L-HM
Anti-wear
Hydraulic Oil

L-HM anti-wear hydraulic oil is blended with highly refined base oil and multi-functional additive by internationally advanced process. Meeting a plurality of international OEM standards, the product can be comprehensively used in lubrication of high pressure hydraulic system in industry, shipping and mobile type machinery, etc. The product comprises several grades such as 15, 22, 32, 46, 68 and 100 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Outstanding anti-wear performance, with multiple hydraulic pump test certification, effectively prolonging service life of pump and hydraulic system
- Excellent filterability, minimizing blockage of filter
- Excellent oxidation stability, longer service life of oil
- Outstanding adaptability to seals, effectively preventing oil from leaking
- Good oil-water separation ability, rapidly separating water from oil, avoiding emulsion of oil
- Good air release performance and anti-foaming ability
- Good viscosity-temperature performance and shear stability, providing effective lubrication in case of high temperature

Technical Specification

The product meets the following specifications:

- GB 11118.1
- ISO 11158 (L-HM)

The product has been approved by following OEM:

- Parker-Denison HF-0
- Eaton-Vickers
- Cincinnati P68, P70, P69

Application

- Comprehensively used in lubrication of high pressure hydraulic system in industry, shipping, mobile type machinery and so on
- Comprehensively used in lubrication of high pressure hydraulic system in engineering machinery, mining machinery, metallurgical equipment and so on

Typical Data

Item	L-HM Anti-wear Hydraulic Oil		
	32	46	68
ISO viscosity grade	32	46	68
Kinematic viscosity (40°C), mm ² /s	33.2	45.8	67.4
Viscosity index	98	97	98
Flash point (COC), °C	230	240	245
Pour point, °C	-15	-15	-13



L-HM Ashless
Anti-wear
Hydraulic Oil

L-HM ashless anti-Wear hydraulic oil is blended with highly refined base oil with high viscosity index and ashless additive formulation by internationally advanced process. Compared to L-HM anti-wear hydraulic oil, it is especially suitable for the lubrication of hydraulic system with copper/ silver parts. The product comprises several grades such as 22, 32, 46 and 68 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Unique non-zinc anti-wear formulation, effectively protecting copper/silver parts, prolonging service life of pump with copper/ silver or silver coated parts
- Outstanding anti-wear performance and proved by multiple hydraulic pump tests, effectively prolong operating life of pump and system
- Excellent filterability, minimizing blockage of filter
- Excellent oxidation stability, longer service life of oil
- Outstanding adaptability to seals, effectively preventing oil from leaking
- Outstanding hydrolytic stability, provides good protection even in case of slight water pollution

Technical Specification

The product meets the following specifications:

- GB 11118.1
- ISO 11158 (L-HM)

The product has been accredited by following OEM:

- Cincinnati P68, P70, P69

Application

- Especially suitable for lubrication of high precision hydraulic system with copper/silver parts

Typical Data

Item	L-HM Ashless Anti-wear Hydraulic Oil		
	22	32	46
ISO viscosity grade	32	46	68
Kinematic viscosity (40°C), mm ² /s	33.39	48.72	70.47
Viscosity index	98	97	97
Flash point (COC), °C	230	235	250
Pour point, °C	-15	-15	-13



L-HV Low Temperature Hydraulic Oil

L-HV low temperature hydraulic oil is blended with highly refined base oil with high viscosity index and well-chosen special functional additives by internationally advanced process. It is especially suitable for the lubrication of moderate/high pressure system working in conditions of outdoor, severe cold regions and large ambient temperature variation or severe condition. The product comprises several grades such as 15, 22, 32, 46 and 68 according to its kinematic viscosity at 40 °C .

Performance Characteristics

- With high anti-wear performance as that of L-HM anti-wear hydraulic oil, better high/low temperature performance and demulsibility than L-HM, providing outstanding low temperature startup ability, low temperature fluidity and high temperature protection, effectively prolonging service life of oil
- Outstanding viscosity-temperature performance, shear and oxidation stabilities, small viscosity variation ensuring more stable work of hydraulic system
- Outstanding anti-wear, anti-rust and anti-corrosion performance, prolonging service life of hydraulic equipment
- Outstanding adaptability to seals, effectively preventing oil from leaking

Technical Specification

The product meets the following specifications:

- GB 11118.1
- ISO 11158 (L-HV)

The product has been approved by following OEM:

- Cincinnati P68, P70, P69

Application

- Suitable for lubrication of moderate/high pressure system working in conditions of outdoor, severe cold regions and large ambient temperature variation or severe condition, such as hydraulic system of engineering, construction, mining and oil field machineries as well as ships and vehicles

Typical Data

Item	L-HV Low Temperature Hydraulic Oil		
ISO viscosity grade	32	46	68
Kinematic viscosity (40 °C), mm ² /s	33.39	48.72	70.47
Flash point (COC), °C	231	240	238
Pour point, °C	-39	-37	-35



L-HS Ultra Low Temperature Hydraulic Oil

L-HS ultra low temperature hydraulic oil is blended with highly refined hydrogenated base oil of high viscosity index and well-chosen special functional additives by internationally advanced process. It has better low temperature performance than L-HV low temperature hydraulic oil, especially suitable for the lubrication of outdoor machinery in severe cold regions. The product comprises several grades such as 22, 32 and 46 according to its kinematic viscosity at 40 °C .

Performance Characteristics

- With better cost performance ratio, capable of substituting L-HM and L-HV of same grade as well as imported low temperature hydraulic oil products
- With better high/low temperature performance and demulsibility compared to L-HM and L-HV, providing outstanding low temperature startup ability, low temperature fluidity and high temperature protection, effectively prolonging service life of oil
- Outstanding viscosity-temperature performance, shear and oxidation stabilities, small viscosity variation ensuring more stable work of hydraulic system
- Outstanding anti-wear, anti-rust and anti-corrosion performance, prolonging service life of equipment
- Good anti-foaming, air release and demulsibility performance
- Outstanding adaptability to seals, effectively preventing oil from leaking

Technical Specification

The product meets the following specification:

- GB 11118.1

The product has been approved by following OEM:

- Cincinnati P68, P70

Application

- Applicable to medium and high pressure hydraulic systems of outdoor machinery operating in cold areas in winter and in areas with large variation of ambient temperature or harsh working conditions, such as hydraulic systems of engineering machinery, building machinery, mining machinery, oil field machinery, shipping and vehicles.

Typical Data

Item	L-HS Ultra Low Temperature Hydraulic Oil	
ISO viscosity grade	32	46
Kinematic viscosity (40°C), mm ² /s	31.35	45.81
Flash point (COC), °C	224	238
Pour point, °C	-48	-43

Turbine Oil Products Series



L-TSA
Turbine Oil

L-TSA turbine oil is blended with high quality base oil and well-chosen additive. With perfect water separation performance and excellent oxidation stability, it is suitable for lubrication of large power turbine units. The product comprises several grades such as 32, 46 and 68 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Perfect water separation ability, rapidly and thoroughly separating water from system, no matter for what reason it enters
- Excellent oxidation stability, prolonging service life of oil
- Good air release performance and anti-foaming ability, effectively reduce cavitation of pump
- Outstanding anti-rust and anti-corrosion performance, effectively avoiding rust of equipment

Technical Specification

The product meets the following specifications:

- GB 11120-2011 (Grade A)
- Siemens TLV 901304
- Alstom Power HTGD 90117

Application

- Suitable for lubrication and sealing of power industry, large/moderate type ship and other industrial steam turbine, gas turbine and water turbine unit

Typical Data

Item	L -TSA Turbine Oil		
	32	46	68
ISO viscosity grade	32	46	68
Kinematic viscosity (40°C), mm ² /s	32.5	45.2	68.9
Viscosity index	100	100	95
Flash point (COC), °C	200	210	222
Pour point, °C	-9	-9	-9
Oxidation stability (D943), h	> 5000	> 5000	> 4000



L-TSE
Turbine Oil

L-TSE turbine oil is blended with high quality base oil and well-chosen additive. With perfect extreme pressure anti-wear performance and excellent oxidation stability, it is suitable for lubrication of turbine with gear reduction device, industrial drive unit and control system. The product comprises 3 grades such as 32, 46 and 68 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Outstanding extreme pressure anti-wear performance, providing effective protection for gear and bearing, reducing costs for maintenance and replacement
- Perfect water separation ability, rapidly and thoroughly separating water from system, no matter for what reason it enters
- Excellent oxidation stability, prolonging service life of oil
- Good air release performance and anti-foaming ability

Technical Specification

The product meets the following specification:

- GB 11120-2011 (L-TSE)

Application

- Suitable for lubrication and sealing of turbine with gear reduction device, industrial drive unit and turbine of ship

Typical Data

Item	L-TSE Turbine Oil		
	32	46	68
ISO viscosity grade	32	46	68
Kinematic viscosity (40°C), mm ² /s	33.8	45.2	68.9
Viscosity index	100	101	95
Flash point (COC), °C	200	218	222
Pour point, °C	-9	-9	-9
Oxidation stability (D943), h	> 3500	> 3500	> 3500
FZG gear test, pass level	10	10	10



L-TSA/LF Long Service Life Turbine Oil

L-TSA/LF Long Service Life Turbine Oil is blended with high quality hydrogenated base oil and well-chosen additive. With oxidation stability, it is suitable for lubrication of large power supercritical turbine and low duty gas turbine. The product comprises 3 grades such as 32, 46 and 68 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Perfect oxidation stability, inhibiting formation of sludge, ensuring overlong service life of oil
- Perfect water separation ability, rapidly and thoroughly separating water from system, no matter for what reason it enters
- Good air release performance and anti-foaming ability, effectively reducing cavitation of pump
- Outstanding anti-rust and anti-corrosion performance, effectively avoiding rust of equipment

Technical Specification

The product meets the following specifications:

- Q/SH PRD 157-2011
- GB 11120-2011 (TSA, TGA)
- Siemens TLV 901304, TLV 901305
- Alstom Power HTGD 90117

Application

- Suitable for lubrication and sealing of large power supercritical turbine, low duty gas turbine, large/moderate type ship and other industrial steam turbine, gas turbine and water turbine unit

Typical Data

Item	L-TSA/LF Long Service Life Turbine Oil		
	32	46	68
ISO viscosity grade	32	46	68
Kinematic viscosity (40°C), mm ² /s	32.2	43.6	63
Viscosity index	131	113	112
Flash point (COC), °C	228	232	225
Pour point, °C	-10	-13	-13
Oxidation stability (D943), h	>10000	>10000	>10000



L-TSE/LF Long Service Life Extreme Pressure Turbine Oil

L-TSE/LF long service life extreme pressure turbine oil is blended with high quality hydrogenated base oil and well-chosen additive. With perfect extreme pressure anti-wear performance and oxidation stability, it is suitable for lubrication of turbine with gear reduction device, industrial drive unit and control system. The product comprises 3 grades such as 32, 46 and 68 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Outstanding extreme pressure anti-wear performance, providing effective protection for gear and bearing, reducing costs for maintenance and replacement
- Perfect oxidation stability, ensuring overlong service life of oil, reducing idle cost for changing oil
- Perfect water separation ability, rapidly and thoroughly separating water from system, no matter for what reason it enters
- Good air release performance and anti-foaming ability

Technical Specification

The product meets the following specifications:

- Q/SH PRD 158-2011
- GB 11120-2011 (L-TSE/TGE)
- Siemens TLV 901304 (EP), TLV 901305 (EP)
- Alstom Power HTGD 90117 (EP)

Application

- Suitable for lubrication of gas-steam combined power generation unit
- Suitable for lubrication of turbine with gear reduction device, industrial drive unit and turbine of ship

Typical Data

Item	L-TSE/LF Long Service Life Extreme Pressure Turbine Oil		
	32	46	68
ISO viscosity grade	32	46	68
Kinematic viscosity (40°C), mm ² /s	32.2	46.27	66.1
Viscosity index	131	120	100
Flash point (COC), °C	228	252	255
Pour point, °C	-10	-15	-12
Oxidation stability (D943), h	>10000	>10000	>8000
FZG gear test, pass grade	10	10	10

Compressor Oil Products Series



L-DAB Air Compressor Oil

L-DAB air compressor oil is blended with highly refined mineral base oil and well-chosen additive, suitable for lubrication of various stationary or mobile type reciprocating compressors. The product comprises several grades such as 32, 46, 68, 100, 150 and 220 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Outstanding anti-wear performance, providing better protection for air compressor
- Outstanding thermal/oxidation stability, Ensuring not to form carbon deposit in high tem-perature condition
- Good anti-rust and anti-corrosion performance, preventing cylinder and vent valve from corrosion and rust
- Good anti-emulsification performance, fast separates water in circulation system.

Technical Specification

The product meets the following specifications:

- GB 12691-90 (L-DAB)
- Q/SH PRD107-2008
- DIN 51506-85

Application

- Suitable for lubrication and sealing of crankcases and cylinder parts of moderate duty reciprocating air compressors involved in such industries as petrochemical engineering and ferrous metallurgy, etc.
- Lubrication of small-type piston air compressors and rotary sliding-vane compressor in common industries as well as lubrication of some plunger type delivery pumps

Typical Data

Item	L-DAB Air Compressor Oil			
	68	100	150	220
ISO viscosity grade	68	100	150	220
Kinematic viscosity (40°C), mm ² /s	70.42	96.57	149.0	219.7
Flash point (COC), °C	242	280	225	264
Pour point, °C	-9	-9	-9	-9
Copper corrosion (100°C , 3h), Grade	1b	1b	1b	1b
Rust prevention (distilled water, method A)	No rust	No rust	No rust	No rust
Water separability (40-37-3, 82°C) min	10	10	10	10
Sulfated ash (mass fraction) %	0.12	0.13	0.15	0.12



L-DAG Air Compressor Oil

L-DAG air compressor oil is blended with highly refined mineral base oil and well-chosen additives of anti-oxidation and anti-corrosion, suitable for lubrication of various low duty oil injection rotary air compressors. The product comprises several grades such as 15, 22, 32, 46, 68 and 100 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Relatively low ash, reducing carbon deposit, avoiding formation of flash explosion
- Good anti-oxidation performance, capable of bearing circulation application vulnerable to oxidation, with relatively long oil drain interval
- Good anti-rust performance
- Good oil-water separation performance

Technical Specification

The product meets the following specifications:

- GB 5904-86
- ISO/DP 6521.3-81

Application

- Suitable for lubrication of rotary air compressor in conditions of discharge temperature less than 100 °C and valid work pressure less than 800kPa

Typical Data

Item	L-DAG Air Compressor Oil	
	32	46
ISO viscosity grade	32	46
Kinematic viscosity (40°C), mm ² /s	33.04	45.62
Flash point (COC), °C	224	242
Pour point, °C	-15	-9
Oxidation stability test, h, ASTM D943	2512	2312



L-DAH Air Compressor Oil

L-DAH air compressor oil is blended with hydrogenated base oil and multi-functional additives. It is suitable for lubrication of various kinds of moderate duty oil injection rotary (screw and sliding-vane) air compressors. The product comprises several grades such as 22, 32, 37 and 46 according to its kinematic viscosity at 40°C .

Performance Characteristics

- Outstanding anti-oxidation stability, ensuring very long service life, reduces generation of oil sludge in oil tank and discharge pipeline, prolongs service life of filter and reduces cost of maintenance
- Excellent oil-water separation performance, less oil is carried to downstream equipment, which reduces the possibility of oil emulsification and blocking of integrated filter
- Excellent anti-wear performance, reduces wear of rotor, bearing and gear
- Good anti-rust performance, improves protection of oil to components and reduces wear due to corrosion
- Oil replacement cycle is up to 4000h under normal operation.

Technical Specification

The product meets the following specification:

- Q/SH PRD106-2008

Application

- Suitable for lubrication of rotary air compressor (screw and sliding-vane) of discharge temperature less than 100°C and valid work pressure of 800kPa-1500kPa, or of discharge temperature of 100°C ~110°C and valid work pressure of 800kPa
- Suitable for lubrication system of centrifugal compressors or axial flow compressors with high-speed gear drives

Typical Data

Item	L-DAH Air Compressor Oil	
ISO viscosity grade	32	46
Kinematic viscosity (40°C) , mm ² /s	31.50	44.69
Flash point (COC), °C	232	236
Pour point, °C	-21	-18
Water separability (40-37-3), 54°C , min	5	10
Copper corrosion (100°C ,3h), Grade	1b	1b
Oxidation stability test, h, ASTM D943	>9000	>6000

Other Oil Products Series



Filmatic Bearing Oil

Filmatic bearing oil is manufactured from highly refined base oil and high performance antioxidant, anti-wear additive, de-emulsifier, antirust and anti-foaming agent, and proportioned through advance process. Its brands include 100, 150, 220, 320, 460, etc. according to viscosity grade of ISO, complying with USS-136.

Performance Characteristics

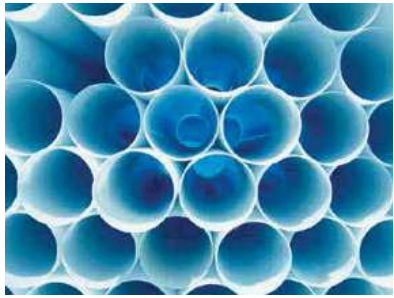
- Good demulsifying capability, easy separation of water and oil, protecting bearing, good water adaptability
- Good thermal oxidation stability, long service life
- Excellent carrying performance, preventing bearing from wear, fewer roller changes
- Good anti-rust, preventing rust of metal parts
- Superior anti-foaming performance, ensuring normal oil supply and development of good oil film
- Good sealing compatibility, compatible with sealing material of applicable mineral oil

Application

- Suitable for lubrication of oil-film bearings and gears of finishing rolling and pre-finishing rolling of high-speed wire mill, wire mill, plate mill and cold sheet mill
- Suitable for lubrication of roughing continuous mill, medium continuous mill and back-up roll bearing of mill
- Service temperature range: -5 °C ~120 °C , and 150 °C for a short time

Typical Data

Item	Filmatic Bearing Oil		
ISO viscosity grade	100	220	460
Kinematic viscosity (40°C) , mm ² /s	96.15	216.0	433.0
Viscosity index	98	97	97
Flash point (COC), °C	255	254	283
Pour point, °C	-21	-18	-15
Copper corrosion (100°C , 3h), Grade	1b	1b	1b
Demulsifying capability (82°C) , Total free water, mL	39.7	38.9	37.8
Oxidation stability (RBOT), min	555	438	420



L-QB 300 Heat-transfer Oil

L-QB300 heat-transfer oil is manufactured from the highly refined narrow fraction mineral base oil and detergency, dispersancy, high-temp oxidation resistant additive, suitable for closed heat transmission system of forced circulation or unforced circulation not more than 300°C .

Performance Characteristics

- Narrow fraction, high initial distillation point
- Good thermal anti-oxidation stability, long service life
- Less evaporation, high flash point
- High specific thermal capacity, good thermal transmission capacity
- Excellent low temperature flow performance
- Good compatibility with material of the system, no corrosion

Technical Specification

- The product meets the following specification:
- SH/T 0677-1999

Application

- Suitable for closed heat transmission system of forced circulation or unforced circulation, suitable for drying, heating processes, such as timber processing, textile finishing, food processing, chemical industries, etc.

Typical Data

Item	L-QB 300 Heat-transfer Oil
Kinematic viscosity (40°C), mm ² /s	32.31
Kinematic viscosity (100°C), mm ² /s	5.483
Kinematic viscosity (0°C), mm ² /s	339.4
Initial boiling point, °C	348
Flash point (COC), °C	218
Flash point (PM), °C	194
Distillation range, 40°C	348
HK	376
2%	473
97%	
Pour point, °C	-12
Corrosion	1
Density, kg/m ³	868.5
Acid value, mgKOH/kg	0.04



Dry Gas Holder Sealing Oil

Dry gas holder sealing oil for gas tanks is manufactured from refined mineral base oil and several superior additives, suitable for thin oil sealing and lubrication of dry gas tanks used in metallurgy, coal gas, and petrochemical industries. The sealing oil includes that for dry air tanks and for low freezing air tanks with brand 1, 2, 3 respectively.

Performance Characteristics

- Agreeable viscosity and superior viscosity-temperature characteristics, ensuring good sealing performance and lubrication all the year
- Good anti-oxidation stability, suitable for cycle use for a long time
- Good water-separating performance, uneasy to be demulsified
- Good rust and corrosion resistant performance

Technical Specification

- The product meets the following specification:
- Q/SH303 364-2010

Application

- Suitable for sealing and lubrication of dry gas tanks used in metallurgy, coal gas, and petrochemical industries

Typical Data

Item	Dry Gas Holder Sealing Oil					
	Brand 1	Brand2	Brand 3	low freezing Brand 1	low freezing Brand 2	low freezing Brand 3
ISO viscosity grade						
Kinematic viscosity (40°C), mm ² /s	65.36	83.30	98.02	59.86	81.54	95.6
Kinematic viscosity (100°C), mm ² /s	8.741	10.22	11.08	8.792	11.18	12.69
Viscosity index	106	104	97	122	126	129
Flash point (COC), °C	220	224	230	206	226	212
Pour point, °C	-30	-21	-16	-40	-35	-35
Acid value, mgKOH/g	0.45	0.38	0.34	0.48	0.50	0.58
Rotating bomb oxidation test/RPVOT (150°C), min	350	370	345	360	370	400



Slide-way Oil

Slide-way oil is manufactured from mineral base oil and well-selected additives, suitable for grinding, tuning, planning, boring and drilling machines. The brands include 32, 46, 68, 100, 150, 220, 320, etc. according to kinematic viscosities at 40°C .

Performance Characteristics

- Good anti-wear performance, effectively reducing wearing
- Good anti-oxidation stability and outstanding rust and corrosion resistant performance
- Good frictional performance to reduce stick-slip

Technical Specification

The product meets the following specifications:

- SH/T 0361-1998 (2007)
- ISO 19378-2003

Application

- Suitable for lubrication of various metal sliding ways
- Slide-way oil (32, 46, 68, 100) of low viscosity suitable for lubrication of horizontal slide-ways
- Slide-way oil (150, 220, 320) of high viscosity suitable for lubrication of vertical slide-ways

Typical Data

Item	Slide-Way Oil						
	32	46	68	100	150	220	320
Viscosity grade	32	46	68	100	150	220	320
Kinematic viscosity (40°C), mm ² /s	32.17	47.38	69.24	101.6	143.4	218.7	321.5
Flash point (COC), °C	222	226	233	254	252	25	256
Pour point, °C	-15	-18	-21	-21	-18	-12	-12
Frictional performance (D-value of coefficient of static friction and dynamic friction) Δμ	0.075	0.072	0.071	0.071	0.070	0.070	0.070



Vacuum Pump Oil

Vacuum pump oil is manufactured from superior mineral oil and several well-selected additives, suitable for lubrication and sealing of various mechanical vacuum pumps. Its brands include 46, 68, 100, etc. according to kinematic viscosities at 40°C .

Performance Characteristics

- Low saturated vapor pressure, high degree of ultimate vacuum and rapid pumping rate at high operation temperature
- Good water separation from oil, good anti-foaming performance and anti-oxidation stability
- Good sealing and lubrication

Technical Specification

The product meets the following specification:

- SH/T 0528-1992 (2007)

Application

- Suitable for sealing and lubrication of various mechanical vacuum pumps

Typical Data

Item	Vacuum Pump Oil
ISO viscosity grade	100
Kinematic viscosity (40°C), mm ² /s	99.45
Flash point (COC), °C	268
Pour point, °C	-9
Saturated vapor pressure (20°C), kPa	1.09×10 ⁻³