

Carbon steel with operating temperature < 120°C

- Structural steel
- Exteriors of equipment, vessels, piping and valves (not insulated)

## Typical systems for newbuildings

Pre-qualifications tested according to Edition 5 of NORSOK M-501 are still valid as the coating systems also fulfil all requirements in Edition 6.

Other options are available – contact TSS

System no.	Surface preparation	Coating system	DFT $\mu\text{m}$	Test report number
1-85	Sa 2½	Barrier Jotacote Universal, alum. Hardtop CA	90 130 <u>80</u> <b>300</b>	LAB10-0124-REP, Rev. 1 NORSOK M-501 Edition 5
1-84	Sa 2½	Barrier Jotacote Universal, alum. Hardtop Optima	90 130 <u>80</u> <b>300</b>	LAB10-0123-REP, Rev. 1 NORSOK M-501 Edition 5
1-109	Sa 2½	Barrier Jotacote Universal, alum. Hardtop Optima	90 130 <u>60</u> <b>280</b>	3410-09-0023 Mt01 NORSOK M-501 Edition 5
1-62	Sa 2½	Barrier Jotacote Universal, alum. Jotaproof Topcoat	75 175 <u>60</u> <b>310</b>	3410-06-0029 Mt01, Rev. A NORSOK M-501 Edition 5
1-94	Sa 2½	Barrier Jotamastic 90, alum. Hardtop XP	60 160 <u>60</u> <b>280</b>	LAB11-0833-REP NORSOK M-501 Edition 5
1-95	Sa 2½	Barrier Jotamastic 90, alum. Hardtop Optima	60 160 <u>60</u> <b>280</b>	LAB11-0834-REP NORSOK M-501 Edition 5
1-96	Sa 2½	Barrier Jotamastic 90, alum. Hardtop CA	60 160 <u>60</u> <b>280</b>	LAB11-0835-REP NORSOK M-501 Edition 5
1-102	Sa 2½	Barrier Penguard Express Hardtop XP	75 150 <u>60</u> <b>285</b>	LAB10-0821-REP NORSOK M-501 Edition 5
1-82	Sa 2½	Barrier Jotamastic Plus Hardtop Optima	75 130 <u>75</u> <b>280</b>	3410-08-0043 Mt01 NORSOK M-501 Edition 5

1-74	Sa 2½	Barrier Jotamastic 87 Aluminium WG Hardtop XP	75 160 <u>75</u> <b>310</b>	LAB08-0832-REP NORSOK M-501 Edition 5
1-143	Sa 2½	Barrier Jotamastic 90 WG Hardtop One	60 160 <u>60</u> <b>280</b>	SL16617 NORSOK M-501 Edition 6
1-133	Sa 2½	Barrier Jotamastic 90 WG Hardtop Pro	60 160 <u>60</u> <b>280</b>	3400-15-022579 Mt05 NORSOK M-501 Edition 6
1-134	Muki Z 2001 Sweep blast	Barrier Jotamastic 90 WG Hardtop Pro	60 160 <u>60</u> <b>280</b>	3400-15-022579 Mt06 NORSOK M-501 Edition 6
1-135	Muki Z 2001 Sweep blast	Barrier Jotamastic 90 WG Hardtop Pro	75 130 <u>75</u> <b>280</b>	3400-15-022579 Mt08 NORSOK M-501 Edition 6
1-87	Sa 2½	Barrier Penguard Plus Hardtop CA	90 140 <u>60</u> <b>290</b>	LAB10-0131-REP NORSOK M-501 Edition 5
1-86	Sa 2½	Barrier Penguard Plus Hardtop Optima	90 130 <u>60</u> <b>280</b>	LAB10-0132-REP NORSOK M-501 Edition 5
1-136	Sa 2½	Barrier Penguard Universal Hardtop AX	60 160 <u>60</u> <b>280</b>	3400-15-022579 Mt09, Rev.1 NORSOK M-501 Edition 6
1-129	Sa 2½	Barrier Penguard Universal, alum. Hardtop Pro	60 160 <u>60</u> <b>280</b>	3400-15-019770 Mt02 NORSOK M-501 Edition 6
1-98	Sa 2½	Barrier Plus Jotacote Universal, alum. Hardtop XP	60 160 <u>60</u> <b>280</b>	3410-10-0049 Mt06 NORSOK M-501 Edition 5
1-107	Sa 2½	Barrier Plus Jotamastic 90 WG, alum. Hardtop CA	60 160 <u>60</u> <b>280</b>	3410-12-009182 Mt03 NORSOK M-501 Edition 6
1-105	Sa 2½	Barrier Plus Jotamastic 90 WG, alum. Hardtop Optima	60 160 <u>60</u> <b>280</b>	3410-12-009182 Mt01 NORSOK M501 Edition 6

1-106	Sa 2½	Barrier Plus Jotamastic 90 WG, alum. Hardtop XP	60 160 <u>60</u> <b>280</b>	3410-12-009182 Mt02 NORSOK M501 Edition 6
1-103	Sa 2½	Barrier Plus Penguard Pro Hardtop Optima	60 150 <u>75</u> <b>285</b>	SL 12020 NORSOK M-501 Edition 5
1-108	Sa 2½	Barrier Plus Penguard Pro Hardtop XP	60 160 <u>60</u> <b>280</b>	SL 13342 NORSOK M-501 Edition 6
1-118	Sa 2½	Barrier Plus Penguard Pro Hardtop AX	60 160 <u>60</u> <b>280</b>	3410-015786 Mt02 NORSOK M-501 Edition 6
1-117	Sa 2½	Barrier Plus Penguard Universal Hardtop AX	60 160 <u>60</u> <b>280</b>	3410-015786 Mt01 NORSOK M-501 Edition 6
1-144	Sa 2½	Barrier Plus Penguard Universal Hardtop One	60 160 <u>60</u> <b>280</b>	SL 16618 NORSOK M-501 Edition 6
1-120	Sa 2½	Barrier Plus Penguard Universal Hardtop Optima	60 160 <u>60</u> <b>280</b>	3410-015786 Mt03 NORSOK M-501 Edition 6
1-128	Sa 2½	Barrier Plus Penguard Universal Hardtop Pro	60 160 <u>60</u> <b>280</b>	3400-15-019770 Mt01 NORSOK M-501 Edition 6
1-123	Sa 2½	Barrier Plus Penguard Universal Jotaproof Topcoat	60 160 <u>60</u> <b>280</b>	3410-015786 Mt06 NORSOK M-501 Edition 6
1-76	Sa 2½	Resist 78 Jotacote Universal, alum. Hardtop XP	60 160 <u>60</u> <b>280</b>	3410-07-0055 Mt03 NORSOK M-501 Edition 5
1-64	Sa 2½	Resist 78 Jotamastic 87 Aluminium Hardtop XP	60 170 <u>50</u> <b>280</b>	3410-07-0001 Mt02 NORSOK M-501 Edition 5
1-97	Sa 2½	Resist 78 Jotamastic 90, alum. Hardtop Optima	60 160 <u>60</u> <b>280</b>	LAB11-0836-REP NORSOK M-501 Edition 5

1-78	Sa 2½	Resist 78 Penguard Plus Jotaproof Topcoat	75 130 <u>75</u> <b>280</b>	3410-08-0029 Mt05 NORSOK M-501 Edition 5
1-80	Sa 2½	Resist 86 Jotacote Universal, alum. Hardtop Optima	75 130 <u>75</u> <b>280</b>	LAB09-0716-REP NORSOK M-501 Edition 5
1-79	Sa 2½	Resist 86 Jotamastic Plus Hardtop Optima	75 130 <u>75</u> <b>280</b>	LAB09-0715-REP NORSOK M-501 Edition 5
1-68	Sa 2½	Resist 86 Jotamastic Plus Jotaproof Topcoat	80 150 <u>75</u> <b>305</b>	3410-07-0047 Mt03 NORSOK M-501 Edition 5
1-81	Sa 2½	Resist 86 Penguard Tie Coat 100 Penguard Plus Hardtop CA	60 30 130 <u>75</u> <b>295</b>	3410-08-0050 Mt05 NORSOK M-501 Edition 5
1-40	Sa 2½	Resist 86 Penguard Tie Coat 100 Jotamastic Plus Jotaproof Topcoat	75 35 200 <u>75</u> <b>385</b>	410-02-0033 M03, NORSOK M-501 Edition 4
1-130	Sa 2½	Resist 86 Penguard Tie Coat 100 Jotamastic Plus Hardtop Pro	60 30 130 <u>75</u> <b>295</b>	3400-15-019770 Mt03 NORSOK M-501 Edition 6
1-131	Sa 2½	Resist 86 Penguard Tie Coat 100 Jotamastic 90 WG Hardtop Optima	75 35 150 <u>80</u> <b>340</b>	3400-15-019770 Mt04 NORSOK M-501 Edition 6
1-90	Sa 2½	Baltoflake Baltoflake	700 <u>700</u> <b>1400</b>	3410-10-0014 Mt03 NORSOK M-501 Edition 5
1-112	Sa 2½	Muki EPS Baltoflake Baltoflake	25 600 <u>600</u> <b>1225</b>	SL 13349 NORSOK M-501 Edition 6
1-124	Sa 2½	Baltoflake Baltoflake FC	700 <u>700</u> <b>1400</b>	3400-14-015786 Mt 11 NORSOK M-501 Edition 6
1-91	Sa 2½	Baltoflake Ecolife Baltoflake Ecolife	700 <u>700</u> <b>1400</b>	3410-10-0014 Mt04 NORSOK M-501 Edition 5

1-111	Sa 2½	Baltoflake Ecolife Baltoflake Ecolife	600 <u>600</u> <b>1200</b>	SL 12374 NORSOK M-501 Edition 6
1-113	Sa 2½	Muki EPS Baltoflake Ecolife Baltoflake Ecolife	25 600 <u>600</u> <b>1225</b>	SL 13350 NORSOK M-501 Edition 6
1-137	Sa 2½	Marathon 1000 GF Marathon 1000 GF Hardtop Pro	500 500 <u>75</u> <b>1075</b>	3400-15-022579 Mt 10 NORSOK M-501 Edition 6

### Typical systems for maintenance

Pre-qualifications tested according to Edition 5 of NORSOK M-501 are still valid as the coating systems also fulfil all requirements in Edition 6.

System no.	Surface preparation	Coating system	DFT µm	Test report number
1-58	UHPWJ	Barrier Jotamastic Plus Jotaproof Topcoat / Hardtop PS5*	75 150 <u>75</u> <b>300</b>	SFT80MK F06047 NORSOK M-501 Edition 5
1-142	Sa2½	Barrier Plus Jotamastic Smart Pack Hardtop One	60 160 <u>60</u> <b>280</b>	SL 16615 NORSOK M-501 Edition 5
1-151	Sa2½	Jotamastic Smart Pack Jotamastic Smart Pack Hardtop XP	100 100 <u>50</u> <b>250</b>	LAB15-0015-REP Rev.1 ISO 20340
1-125	St 3	Jotamastic 80, alum. Jotamasdtic 80, alum. Hardtop XP	100 150 <u>50</u> <b>300</b>	3410-13-012057 ISO 20340

\* NORSOK M-501 Edition 6, allows switching of topcoats in a pre-qualified NORSOK system. According to this reference other topcoats may also be approved for each NORSOK pre-qualified system.

Please contact Technical Sales Support department ([+47 33457000](tel:+4733457000) or [tss@jotun.com](mailto:tss@jotun.com)) for further information.

Carbon steel with operating temperature > 120°C

- All insulated surfaces of tanks, vessels, piping
- Flare booms and crane booms

Underside of bottom deck included piping, jacket above splash zone and lifeboat stations are optional areas (to be decided in each project).

<b>2A For thermally sprayed aluminium, use the following sealers:</b>			
<b>System no.</b>	<b>Surface preparation</b>	<b>Coating system</b>	<b>DFT µm</b>
2A-1	TSA	Penguard Tie Coat 100	<u>15</u> <b>15</b>
2A-2	TSA	Solvalitt, aluminium	<u>15</u> <b>15</b>
<b>2B For thermally sprayed zinc or zinc alloys, use the following system:</b>			
<b>System no.</b>	<b>Surface preparation</b>	<b>Coating system</b>	<b>DFT µm</b>
2B-1	Un-insulated <120°C	Penguard Tie Coat 100	15
		Penguard Pro	125
		Hardtop Optima	<u>75</u> <b>215</b>

See general notes in the NORSOK standard.

Internal surface of carbon steel tanks

3A Potable water tanks <sup>1)</sup>				
System no.	Surface preparation	Coating system	DFT $\mu\text{m}$	Test report number
3A	Sa 2½	Tankguard DW Tankguard DW	300 <u>300</u> <b>600</b>	
3B Ballast water tanks/internal seawater filled compartments (shall be pre-qualified)				
Pre-qualifications tested according to Edition 5 of NORSOK M-501 are still valid as the coating systems also fulfil all requirements in Edition 6.				
System no.	Surface preparation	Coating system	DFT $\mu\text{m}$	Test report number
3B-13	Shoppripped steel	Jotamastic 87 Aluminium Jotamastic 87	160 <u>160</u> <b>320</b>	BGN-R2707467 NORSOK M-501 Edition 5
3B-11	Shoppripped steel Sweep blasting	Jotacote Universal, alum. Jotacote Universal	150 <u>150</u> <b>300</b>	BGN-R2706231 NORSOK M-501 Edition 5
3B-12	Shoppripped steel Sweep blasting	Jotacote Universal, alum. Jotacote Universal	160 <u>160</u> <b>320</b>	BGN-R2707247 NORSOK M-501 Edition 5
3C Tanks for stabilised crude, diesel and condensate <sup>1)</sup>				
System no.	Surface preparation	Coating system	DFT $\mu\text{m}$	Test report number
3C	Sa 2½	Tankguard Storage Tankguard Storage	125 <u>125</u> <b>250</b>	
3D Process vessels < 0.3 MPa, < 75°C <sup>1)</sup>				
System no.	Surface preparation	Coating system	DFT $\mu\text{m}$	Test report number
3D	Sa 2½	Chemflake Special Chemflake Special	750 <u>750</u> <b>1500</b>	

<b>3E Process vessels &lt; 7 MPa, &lt; 80°C <sup>1)</sup></b>				
<b>System no.</b>	<b>Surface preparation</b>	<b>Coating system</b>	<b>DFT <math>\mu\text{m}</math></b>	<b>Test report number</b>
3E	Sa 2½	Tankguard HB Marathon Marathon	75 250 <u>250</u> <b>575</b>	
<b>3F Process vessels &lt; 3 MPa, &lt; 130°C <sup>1)</sup></b>				
<b>System no.</b>	<b>Surface preparation</b>	<b>Coating system</b>	<b>DFT <math>\mu\text{m}</math></b>	<b>Test report number</b>
3F	Sa 2½	Tankguard SF	<u>300</u> <b>300</b>	
<b>3G Vessels for storage of methanol, mono ethyl glycol etc.</b>				
<b>System no.</b>	<b>Surface preparation</b>	<b>Coating system</b>	<b>DFT <math>\mu\text{m}</math></b>	<b>Test report number</b>
3G	Sa 2½	Tankguard Zinc	<u>90</u> <b>90</b>	

<sup>1)</sup> Lining materials for tanks are subject to discussions. Other systems may be required depending on medium in the tank and exposure conditions.

Please contact Technical Sales Support department (+47 33457000 or [tss@jotun.com](mailto:tss@jotun.com)) for further information.



# NORSOK – Coating system no. 4

(shall be pre-qualified)



Walkways, escape routes and lay down areas

## Typical systems

Pre-qualifications tested according to Edition 5 of NORSOK M-501 are still valid as the coating systems also fulfil all requirements in Edition 6.

Other options are available- contact TSS

System no.	Surface preparation	Coating system	DFT $\mu\text{m}$	Test report number
4-1	Sa 2½	Baltoflake Baltoflake Baltoflake – Carborex - Baltoflake	750 750 <u>600</u> <b>2100</b>	410-02-0013 M13
4-2	Sa 2½	Jotamastic 80, alum. Jotamastic 80, alum. Jota Armour	150 150 <u>1000</u> <b>1300</b>	3410-10-0014 Mt06
4-3	Sa 2½	Jotamastic 80 WG, alum. Jotamastic 80 WG, alum. Jota Armour WG	150 150 <u>1000</u> <b>1300</b>	3410-12-006106 Mt01

# NORSOK – Coating system no. 5

(passive fire protection material shall be pre-qualified)



Under fire protection

5A Under epoxy based fire protection				
System no.	Surface preparation	Coating system	DFT $\mu\text{m}$	Test report number
5A-1	Sa 2½	Barrier Plus	60	3410-12-0061106 Mt02, PFP
		Penguard Tie Coat 100	25	
		Jotachar JF750	*	
		Epoxy tie-coat	**	
		Hardtop Optima/Pro/CA/XP/AX	***	
5A-2	Sa 2½	Barrier	60	
		Penguard Tie Coat 100	25	
		Jotachar JF750	*	
		Epoxy tie-coat	**	
		Hardtop Optima/Pro/CA/XP/AX	***	
5A-3	TSZ	Penguard Tie Coat 100	15	
		Jotachar JF750	*	
		Epoxy tie-coat	**	
		Hardtop Optima/Pro/CA/XP/AX	***	
<p><b>Notes:</b></p> <p>* Jotachar JF750 film thickness will vary depending on steel size and fire duration requirements. Please consult your Jotun PFP representative.</p> <p style="text-align: center;"><u>The following guidelines are in accordance to NORSOK M501 rev.6</u></p> <p>Primers pre-qualified in NORSOK system no.1 may be used as a primer for the passive fire protection system. (Approved primers to be used are on the Jotachar approved primer list available on JOIN.)</p> <p>** NORSOK M-501 requires the use of an epoxy tie-coat on top of the epoxy based fire protection prior to application of topcoat.</p> <p>*** Topcoats pre-qualified in NORSOK system no.1 may be used on passive fire protection.</p>				
5B Under cement based fire protection				
Please contact Technical Sales Support department (+47 33457000 or <a href="mailto:tss@jotun.com">tss@jotun.com</a> ) for further information.				

<b>6A Uninsulated stainless steel when painting is required Aluminium when painting is required</b>			
<b>System no.</b>	<b>Surface preparation</b>	<b>Coating system</b>	<b>DFT <math>\mu\text{m}</math></b>
6A-1	Sweep blasting with non-metallic abrasive	Penguard Primer Penguard Universal Jotaproof Topcoat*	50 100 <u>75</u> <b>225</b>
6A-2	Sweep blasting with non-metallic abrasive	Penguard Primer Penguard Universal Hardtop AX*	50 100 <u>50</u> <b>200</b>
*) If polysiloxane is required, use Hardtop Optima			
<b>6B Galvanised steel or insulated stainless steel piping and vessels at temperatures &lt; 120°C</b>			
<b>System no.</b>	<b>Surface preparation</b>	<b>Coating system</b>	<b>DFT <math>\mu\text{m}</math></b>
6B-1	Sweep blasting with non-metallic abrasive	Penguard Primer Penguard Universal Hardtop AX*	50 100 <u>50</u> <b>200</b>
*) If polysiloxane is required, use Hardtop Optima			
<b>6C Stainless steel &lt; 150°C</b>			
<b>System no.</b>	<b>Surface preparation</b>	<b>Coating system</b>	<b>DFT <math>\mu\text{m}</math></b>
6C-1	Sweep blasting with non-metallic abrasive	Epoxy HR Epoxy HR	125 <u>125</u> <b>250</b>

Carbon steel and stainless steel

- Splash zone
- Submerged ≤ 50°C
- Submerged > 50°C

## 7A Carbon steel, splash zone

Pre-qualifications tested according to Edition 5 of NORSOK M-501 are still valid as the coating systems also fulfil all requirements in Edition 6.

Other options are available- Please contact TSS

System no.	Surface preparation	Coating system	DFT μm	Test report number
7A-25	Sa 2½	Baltoflake Baltoflake	700 <u>700</u> <b>1400</b>	3410-10-0014 Mt03 NORSOK M-501 Edition 5
7A-40	Sa 2½	Muki EPS Baltoflake Baltoflake	25 600 <u>600</u> <b>1230</b>	SL13349 NORSOK M-501 Edition 6
7A-49	Sa 2½	Muki EPS Baltoflake Baltoflake FC	25 600 <u>600</u> <b>1230</b>	LAB 15-0455-REP Rev.1 NORSOK M-501 Edition 6
7A-36	Sa 2½	Baltoflake Ecolife Baltoflake Ecolife	600 <u>600</u> <b>1200</b>	SL 12374 / SL 12375 NORSOK M-501 Edition 6
7A-26	Sa 2½	Baltoflake Ecolife Baltoflake Ecolife	700 <u>700</u> <b>1400</b>	3410-10-0014 Mt04 NORSOK M-501 Edition 5
7A-43	Sa 2½	Baltoflake Ecolife Baltoflake Ecolife	750 <u>750</u> <b>1500</b>	LAB15-0454-REP Rev.1 NORSOK M-501 Edition 6
7A-41	Sa 2½	Muki EPS Baltoflake Ecolife Baltoflake Ecolife	30 600 <u>600</u> <b>1230</b>	SL 13350 NORSOK M-501 Edition 6
7A-37	Sa 2½	Marathon Marathon	300 <u>300</u> <b>600</b>	SL 13379 NORSOK M-501 Edition 6
7A-38	Sa 2½	Marathon 500 Marathon 500	300 <u>300</u> <b>600</b>	SL 13363 NORSOK M-501 Edition 6
7A-47	Sa 2½	Marathon 1000 GF Marathon 1000 GF	500 <u>500</u> <b>1000</b>	3400-15-022579 Mt11 NORSOK M-501 Edition 6

7A-52	Sa 2½	Marathon 1000 GF Marathon 1000 GF	750 <u>750</u> <b>1500</b>	NO 17434 NORSOK M-501 Edition 6
7A-51	Sa 2½	Marathon 1000 XHB Marathon 1000 XHB	750 <u>750</u> <b>1500</b>	NO 17433 NORSOK M-501 Edition 6
7A-39	Sa 2½	Penguard Pro GF Penguard Pro GF	300 <u>300</u> <b>600</b>	SL 13348 NORSOK M-501 Edition 6
7A-42	Sa 2½	Penguard Pro Alu X Penguard Pro GF X (Hardtop XP)	175 500 <u>(75)</u> <b>675</b> <b>(750)</b>	3410-12-009182 Mt04 3410-12-009182 Mt05 NORSOK M-501 Edition 6
7A-44	Sa 2½	Jotamastic 87 Aluminium Jotamastic 87 Aluminium Jotamastic 87 Aluminium	200 200 <u>200</u> <b>600</b>	SL 14467 NORSOK M-501 Edition 6

### 7B Carbon steel, submerged

Pre-qualifications tested according to Edition 5 of NORSOK M-501 are still valid as the coating systems also fulfil all requirements in Edition 6.

System no.	Surface preparation	Coating system	DFT µm	Test report number
7B-44	Sa 2½	Jotacote Universal, alum. Jotacote Universal	200 <u>150</u> <b>350</b>	3400-15-021881 Mt02, Rev.A NORSOK M-501 Edition 6
7B-45	Sa 2½	Jotamastic 87 Aluminium Jotamastic 87	200 <u>150</u> <b>350</b>	3400-15-0021881 Mt01 NORSOK M-501 Edition 6
7B-46	Sa 2½	Jotamastic 87 Aluminium WG Jotamastic 87 WG	200 <u>150</u> <b>350</b>	SL 15149 NORSOK M-501 Edition 6
7B-27	Sa 2½	Jotamastic 87 GF Jotamastic 87 GF	250 <u>250</u> <b>500</b>	Report: SL 11589 NORSOK M-501 Edition 5
7B-33	Sa 2½	Jotamastic 90, alum. Jotamastic 90	200 <u>150</u> <b>350</b>	3410-12-009182 Mt06/SL 12373 NORSOK M-501 Edition 6
7B-34	Sa 2½	Jotamastic 90 WG, alum. Jotamastic 90 WG	200 <u>150</u> <b>350</b>	3410-12-009182 Mt07 NORSOK M-501 Edition 6
7B-29	Sa 2½	Jotamastic SF, alum. Jotamastic SF	150 <u>200</u> <b>350</b>	3410-10-0049 Mt07 NORSOK M-501 Edition 5
7B-32	Sa 2½	Jotamastic SF WG, alum. Jotamastic SF WG	200 <u>150</u> <b>350</b>	3410-11-003053 Mt01 NORSOK M-501 Edition 5

7B-28	Sa 2½	Marathon Marathon	250 <u>250</u> <b>500</b>	Report: SL 11587 NORSOK M-501 Edition 5
7B-48	Sa 2½	Marathon Marathon	300 <u>200</u> <b>500</b>	SL 15052 NORSOK M-501 Edition 6
7B-35	Sa 2½	Penguard Pro Alu Penguard Pro	200 <u>150</u> <b>350</b>	SL 13341 NORSOK M-501 Edition 6
7B-36	Sa 2½	Penguard Pro Alu Penguard Pro SeaLion Resilient	200 150 <u>100</u> <b>450</b>	SL 14053 NORSOK M-501 Edition 6
7B-37	Sa 2½	Penguard Pro Alu SeaLion Resilient	250 <u>100</u> <b>350</b>	SL 14063 NORSOK M-501 Edition 6
7B-47	Sa 2½	Penguard Pro GF Penguard Pro GF	175 <u>175</u> <b>350</b>	3400-15-022579 Mt13 NORSOK M-501 Edition 6
7B-30	Sa 2½	Penguard Pro GF Penguard Pro GF	250 <u>250</u> <b>500</b>	Report: SL 12024 NORSOK M-501 Edition 5
7B-41	Sa 2½	Penguard Universal, alum. Penguard Universal	175 <u>175</u> <b>350</b>	3400-14-015786 Mt 08

**7C Carbon steel, submerged > 50°C - Contact TSS**

System no.	Surface preparation	Coating system	DFT µm	Test report number
7C-1	Sa 2½	Marathon Marathon	300 <u>200</u> <b>500</b>	SINTEF F21006 / SL 15052 NORSOK M-501 Edition 6
7C-2	Sa 2½	Tankguard Plus Tankguard Plus Tankguard Plus	125 125 <u>100</u> <b>350</b>	SINTEF F26843 / SL 15150 NORSOK M-501 Edition 6
7C-3	Sa 2½	Tankguard SF Tankguard SF	175 <u>175</u> <b>350</b>	SINTEF F26783 / 3400-15-020723v Mt01 NORSOK M-501 Edition 6

**Structural carbon steel with max. operating temperature  $\leq 80^{\circ}\text{C}$  in internal and fully dry and ventilated areas**

System no.	Surface preparation	Coating system	DFT $\mu\text{m}$
8A-1	Sa 2½	Penguard Universal	<u>150</u> <b>150</b>
8A-2	Sa 2½	Jotamastic 90 WG	<u>150</u> <b>150</b>
8B-1	Sa 2½	Barrier Plus Penguard Tie Coat 100	60 <u>25</u> <b>85</b>

## Bulk supplied carbon steel valves with max. operating temperature up to 150°C

System no.	Surface preparation	Coating system	DFT $\mu\text{m}$
9-1	Sa 2½	Epoxy HR Epoxy HR	150 <u>150</u> <b>300</b>