System 3A

Location
Internal surface of carbon steel vessels

Description
Potable water tanks

Pre-qualification is not required

Product	DFT µm
Hempadur 35560[WRC,NORSK,NSF]	300
Hempadur 35560	300
Total	600
Hempadur Multi-Strength 35530 [WRC,NORSK,NSF]	300
Hempadur Multi-Strength 35530	300
Total	600
Hempadur 35600 [WRC 60ºC]	300
Hempadur 35600	300
Total	600

Note [WRC] = Water Research Centre (UK)

Note [WRC 60ºC] = Water Research Centre, UK (Hot potable water max temp 60°C/140°F).

Note [NORSK] = Norsk Folkehelse

Note [NSF] = National Sanitation Foundation (US)

System 3B

Location
Internal surface of carbon steel vessels

Description
Ballast tanks

Pre-qualification is required

Product	DFT µm
Shop primer	20
Hempadur Quattro XO 17870	160
Hempadur Quattro XO 17870	160
Total	340
Shop primer	20
Hempadur Quattro XO 17820	160
Hempadur Quattro XO 17820	160
Total	340
Shop primer	20
Hempadur Quattro XO 17720	160
Hempadur Quattro XO 17720	160
Total	340
Shop primer	20
Hempadur Quattro XO 17760	160
Hempadur Quattro XO 17760	160
Total	340
Shop primer	20
Hempadur Quattro XO 17770	160
Hempadur Quattro XO 17770	160
Total	340
Shop primer	20
Hempadur 15600	160
Hempadur 15600	160
Total	340
Shop primer	20
Hempadur Quattro 17634	160
Hempadur Quattro 17634	160
Total	340

Product	DFT µm
Shop primer	20
Hempadur Quattro Alu 45604	160
Hempadur Quattro 17634	160
Total	340
Shop primer	20
Hempadur Quattro Fibre 47604	160
Hempadur Quattro 17634	160
Total	340
Shop primer	20
Hempadur Uniq 47741	160
Hempadur Uniq 47741	160
Total	340
Shop primer	20
Hempadur Uniq 47743	160
Hempadur Uniq 47743	160
Total	340
Shop primer	20
Hempadur Quattro 17634	160
Hempadur XO 35790	160
Total	340
Shop primer	20
Hempadur Quattro 17630	160
Hempadur Quattro 17630	160
Total	340
Shop primer	20
Hempadur 35750	160
Hempadur 35750	160
Total	340

Note [1] = Various optional shop primers are approved - contact Hempel for details. This note applies to all of the above systems in System 3B.

Note [2] = Coating system 3B for ballast water tanks approved to IMO MSC.215 (82) shall be considered as qualified. This note applies to all of the above systems in System 3B.

Note [3] = Care should be taken to avoid excessive temperature gradients from adjacent storage areas. For temperature gradients above 15°C contact Hempel technical support. This note applies to all of the above systems in System 3B.

System 3C

Location
Internal surface of carbon steel vessels

Description
Tanks for stabilised crude, diesel and condensate

Pre-qualification is not required

Product	DFT µm
Shop primer[1]	20
Hempadur Quattro XO 17870[2,3]	160
Hempadur Quattro XO 17870	160
Total	340
Shop primer[1]	20
Hempadur 15600[2,4]	160
Hempadur 15600	160
Total	340
Shop primer[1]	20
Hempadur Quattro 17634[2,3]	160
Hempadur Quattro 17634	160
Total	340
Shop primer[1]	20
Hempadur Uniq 47741[2,3]	160
Hempadur Uniq 47741	160
Total	340
Shop primer[1]	20
Hempadur Quattro XO 17720[2,3]	160
Hempadur Quattro XO 17720	160
Total	340
Hempadur Quattro XO 17820[2,3]	160
Hempadur Quattro XO 17820	160
Total	320
Hempadur 85671	160
Hempadur 85671	160
Total	320

Note [1] = Various optional shop primers are approved - contact Hempel for further details. This note applies to all of the above systems in System 3C where shop primer is listed.

Note [2] = Approved to IMO Resolution MSC.288 (87):2010 - Annex II test procedures for coating qualification for cargo oil tanks of crude oil tankers. This note applies to all of the coating systems listed in System3C.

Note [3] = Content of aromates should be less than 15%. If a water phase is present, then the maximum service temperature is 40°C/104°F. Otherwise maximum service temperature is 65°C/149°F. Loading and offloading up to 85°C/185°F.

Note [4] = Content of aromates should be less than 15%. If a water phase is present, then the maximum service temperature is 65°C/140°F. Loading and offloading up to 85°C/185°F.

Note [5] = Care should be taken to avoid excessive temperature gradients from adjacent storage areas. For temperature gradients above 15°C contact Hempel technical support. This note applies to all of the above systems in System 3C.

System 3D

Location
Internal surfaces of carbon steel vessels

Description
Process vessels < 3 bar, < 75°C/167°F.

Pre-qualification is not required

Product	DFT µm
Hempadur 85671	100
Hempadur 85671	100
Hempadur 85671	100
Total	300
Hempadur 35900[2]	250
Hempadur 35900	250
Total	500

System 3E

Location
Internal surfaces of carbon steel vessels

Description
Process vessels < 70 bar, < 80°C/176°F

Pre-qualification is not required

Product	DFT µm
Hempadur 85671	100
Hempadur 85671	100
Hempadur 85671	100
Total	300
Hempadur 35900[2]	250
Hempadur 35900	250
Total	500

System 3F

Location
Internal surfaces of carbon steel vessels

Description
Process vessels < 30 bar, < 130°C/266°F

Pre-qualification is not required

Product	DFT µm
Hempadur 85671	100
Hempadur 85671	100
Hempadur 85671	100
Total	300

Note [1] = Suitability is subject to confirmation of actual operating conditions. This note applies to all systems in System 3D, 3E and 3F.

Note [2] = Solvent free. This note applies to systems 3D and 3E.

System 3G

Location
Internal surface of carbon steel vessels

Description
Vessels for storage of methanol, MEG etc

Pre-qualification is not required

Product	DFT µm
Hempel's Galvosil 15700	100
Total	100