Hempaguard X7 899FR

Product characteristics

Description
Hempaguard X7 899FR is an advanced fouling defence coating based on ActiGuard® technology which utilizes the added effect of advanced hydrogel silicone and an efficient fouling preventing biocide. This boosts the antifouling barrier and prolongs the fouling free period. Hempaguard X7 899FR therefore possesses a high fuel saving potential and is also suitable for vessels operating with long service intervals (up to 90 months) and/or very long idle periods (up to 120 days). Hempaguard X7 899FR is an advanced fouling defence coating with high solids content. The product is based on silicone, and cures after addition of CROSSLINKER 98983.

Recommended use
For all vessels, with no limitation on service speeds, including slow/ultraslow steaming vessels and FPSO's. The product is also suitable for propellers.
This product does not contain organotin compounds acting as biocides and complies with the International Convention on the Control of Harmful Antifouling Systems on Ships as adopted by IMO October 2001 (IMO document AFS/CONF/26).

Service temperature:
- Minimum, recommended by Hempel for dry exposure: -50°C [-58°F].

Certificates / Approvals
- This product does not contain cybutryne or organotin compounds acting as biocides and complies with the International Convention on the Control of Harmful Antifouling Systems on Ships adopted by IMO October 2001 (IMO Document AFS/CONF/26 and its subsequent amendments)

Product safety

Flash point 25°C [77°F]

VOC content mixed product

Legislation	Value
EU	262 g/L [2.19 lb/US gal]
US (coatings)	260 g/L [2.17 lb/US gal]
US (regulatory)	260 g/L [2.17 lb/US gal]
Canada	260 g/L [2.17 lb/US gal]
China	262 g/L [2.19 lb/US gal]
Hong Kong	260 g/L [2.17 lb/US gal]
Korea	262 g/L [2.19 lb/US gal]

Handling
Handle with care. Before and during use, observe safety labels on packaging and paint containers and follow all local and national safety regulations. Always consult Hempel's Safety Data Sheet for this product along with the Product Data Sheet.

For professional use only.

Product data

Product code: 899FR

Product components: Base 89908 | Curing Agent 98983

Standard shade / code: Brownish red 59161

Gloss: Glossy

Volume solids: 70 ± 2%

Specific gravity: 1 kg/L [9 lb/US gal]

Reference dry film thickness: 150 micron [6.0 mils]

Surface preparation

Consult Hempel's separate Surface Preparation Guidelines for more details.

Application

Mixing ratio
Base 89908 : Curing Agent 98983
(17.8 : 2.2 by volume)

Thinner
Hempel's Thinner 08080

Cleaner
Hempel's Thinner 08080

Hempaguard X7 899FR

Cleaner
Hempel's Thinner 08080

Pot life

Product temperature	20°C [68°F]
Pot life	60 min

Application method

Tool	Application parameters
Airless spray	Nozzle pressure: 150 bar [2200 psi] Nozzle orifice: 0.019-0.021"
Brush/Roller	-

Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

Film thickness

Specification range	Low	High	Recommended
Dry film thickness	100 micron [4.0 mils]	175 micron [7.0 mils]	150 micron [6.0 mils]
Wet film thickness	142 micron [5.7 mils]	249 micron [10.0 mils]	214 micron [8.5 mils]
Theoretical spreading rate	7 m²/L [285 sq ft/US gal]	4 m²/L [163 sq ft/US gal]	4.7 m²/L [192 sq ft/US gal]

Relative Humidity:
- Relative humidity must be in the range 30-85% during curing.
- Relative humidity must be in the range 30-85% during application.

Drying and overcoating

Drying time

Surface temperature		10°C [50°F]	20°C [68°F]	30°C [86°F]
Hard dry	hours	3½	1	½
Fully cured	days	7	4	3

Determined for dry film thickness 150 micron [6.0 mils] at standard conditions, see Hempel's Explanatory Notes for details.

Overcoating

Hempel's specification supersedes any guidelines indicated in the overcoating table

Quality name		10°C [50°F]	20°C [68°F]	30°C [86°F]
		Immersion		
Hempaguard X7 899FR	Min	21 h	8 h	6 h
	Max	14 d	14 d	14 d
Hempel's Nexus II 27400	Min	-	-	-
	Max	-	-	-

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	24 months
Curing Agent	12 months

Shelf life from date of production, when stored in original, unopened containers. Thereafter, the product quality must be re-inspected. Storage at elevated temperatures may reduce shelf life. The shelf life printed on product labels is based on regional climate conditions. For advice, please consult Hempel.

Storage conditions
- The product must be stored in accordance with Safety Data Sheet, label and local regulations. Keep the containers in a dry, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	11.8 g CO_2e/m²	0.061 lb CO_2e/ft²

The carbon footprint is for 1 square meter / square foot of surface area with a dry film thickness of 1 micron / mil.

The scope includes raw materials, in-bound transport to the Hempel factory, Hempel manufacturing processes, and any Volatile Organic Compounds emitted during and after the application of the product.

It is calculated based on the standard shade defined in this PDS. Values may vary with shade.

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Additional documents

Additional information is available at the Knowledge Center:
https://www.hempel.com/knowledge-center
. The documents below can be found in the Technical Guidelines section:
https://www.hempel.com/knowledge-center/technical-guidelines
or at the Hempel website.

- Explanatory Notes for Product Data Sheet.
- Application methods.
- Consult Hempel's separate guideline on general requirements for Hempaguard/Hempasil application.

This Product Data Sheet ("**PDS**") relates to the supplied product ("**Product**") and is subject to updating from time-to-time. Accordingly, the buyer/applicator should have regard to the PDS supplied together with the relevant batch of the Product (and not an earlier version). In addition to the PDS, the buyer/applicator may receive some or all of the following specifications, statements and/or guidelines as listed below or as are available from the Hempel website under 'Products' at www.hempel.com (the "**Additional documents**"):

No.	Document description	Location/comments
1.	Technical Statement	One-off specific advice provided on request for specific projects
2.	Specification	Only issued for specific projects
3.	PDS	This document
4.	Explanatory Notes to the PDS	Available at www.hempel.com and contain relevant information about the Product testing parameters
5.	Application Instruction	Where available, at www.hempel.com
6.	Generic technical guidelines (e.g. on application and surface preparation)	Where available, at www.hempel.com

In the event of a conflict of information between the PDS and the Additional documents, the order of priority of information shall be in the order as set out above. In such event you should also contact your representative at Hempel for clarification. Furthermore, the buyer/applicator must have full regard to the relevant Safety Data Sheet provided with each Product and which can also be downloaded from www.hempel.com.

Hempel shall not be liable for defects where the application of the Product has not been made fully in accordance with the recommendations and requirements set out in the relevant PDS and the Additional Documents. The information and terms of this disclaimer apply to this PDS, the Additional documents and any other documents supplied by Hempel in respect of the Product. In addition, the Product is supplied and all technical assistance is given subject to Hempel's General Conditions of Sale, Delivery and Service, unless otherwise expressly agreed in writing.