Technical Data Sheet



Safeguard FRC PE

Product description

This is a three component elastomeric silicone tie coat. It provides excellent adhesion for Jotun FRC topcoats. Can only be applied directly onto the following primers:

Jotamastic 85

Jotacote Universal N10

Jotaprime 500 Alu / Alu RT

Jotaprime 510

A complete application procedure covering dry docking with Jotun Foul Release Coatings (FRC) is available, ref. TSS-TI-084.

Typical use

Penguard Universal

Marine:

Recommended for underwater hull in newbuilding and drydocking. Specially designed as a tie coat for Jotun FRC topcoats, ensuring a relatively long over coating interval giving flexibility in production.

Colours

light red

Product data

Property Test/Standard		Description		
Solids by volume	ISO 3233	55 ± 2 %		
Flash point	ISO 3679 Method 1	24 °C		
Density	calculated	1 kg/l		
Region	Regulation	Test Standard	VOC Value	
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	372 g/l	
Hong Kong	Air Pollution Control (VOC) Regulation	Calculated	372 g/l	
EU	European Paint Directive 2004/42/CE	Calculated	372 g/l	
EU IED	Industrial Emission Directive 2010/75/EU	Calculated	372 g/l	
Korea	Korea Clean Air Conservation Act	Calculated	372 g/l	
China	GB 30981-2020 Limit of harmful substances of industrial protective coating	GB/T 23985-2009 8.3 s	420 g/l	

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The provided data is typical for factory produced products, subject to slight variation depending on colour.

Film thickness per coat

Typical recommended specification range

Dry film thickness	90	μm
Wet film thickness	160	μm
Theoretical spreading rate	6.1	m²/l

Surface preparation

Surface preparation summary table

	Surface preparation			
Substrate	Minimum	Recommended		
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating		

Application

Application methods

The product can be applied by

Spray: Use airless spray.

Care should be taken to avoid overspray onto other areas.

Product mixing ratio (by volume)

Safeguard FRC PE Comp A 16.7 part(s)
Safeguard FRC S/PE Comp B 0.6 part(s)
Safeguard FRC S/PE Comp C 0.9 part(s)

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Thinner/Cleaning solvent

Do not add thinner.

Cleaning solvent: Jotun Thinner No. 7 / Jotun Thinner No. 10

When thinners are used as a cleaning solvent, the use must be in accordance with prevailing local regulations.

Guiding data for airless spray

Nozzle tip (inch/1000): 15-23

Pressure at nozzle (minimum): 210 bar/3000 psi

Drying and Curing time

Substrate temperature	10 °C	15 °C	23 °C	30 °C	40 °C	
Surface (touch) dry	8 h	6 h	4 h	3 h	2 h	
Dry to over coat, minimum	18 h	16 h	12 h	9 h	6 h	

For maximum overcoating intervals, refer to the Application Guide (AG) for this product.

After finished application the substrate temperature must be kept at minimum 10 $^{\circ}$ C for at least 2 hours. Lowest substrate temperature during the drying/curing period is 5 $^{\circ}$ C.

Drying and curing times are determined under controlled temperatures and relative humidity below 85 %, and above 30 %, and at average of the DFT range for the product.

For detailed overcoating instructions when rain is expected refer to TSS-TI-084.

Note: The cured product will reveal some tackiness.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

Dry to over coat, minimum: The recommended shortest time before the next coat can be applied.

Induction time and Pot life

Paint temperature	10 °C	15 °C	23 °C	30 °C	40 °C
Pot life	1 h	1 h	1 h	45 min	30 min

Induction time: Not required

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Recommended type of primer

Can only be applied directly onto the following primers: Jotacote Universal N10 Jotaprime 500 Alu / Alu RT Jotaprime 510 Penguard Universal

Packaging (typical)

	Volume	Size of containers		
	(litres)	(litres)		
Safeguard FRC PE Comp A	16.7	20		
Safeguard FRC S/PE Comp B	0.6	0.75		
Safeguard FRC S/PE Comp C	0.9	1		

The volume stated is for factory made colours. Note that local variants in pack size and filled volumes can vary due to local regulations.

Storage

The product must be stored in accordance with national 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.

Shelf life at 23 °C

Safeguard FRC PE Comp A	18 month(s)
Safeguard FRC S/PE Comp B	18 month(s)
Safeguard FRC S/PE Comp C	18 month(s)

In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Caution

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Jotun's technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Jotun representative for approval before commencing the work.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

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Colour variation

When applicable, products primarily meant for use as primers or antifoulings may have slight colour variations from batch to batch. Such products and epoxy based products used as a finish coat may chalk when exposed to sunlight and weathering.

Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., application quality and generic type of paint. Contact your local Jotun office for further information.

Disclaimer

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.

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