Technical Data Sheet

SeaQuest Endura II

Product description

SeaQuest Endura II is a three component biocidal foul release coating based on advanced Elastotain® technology with the unique Flexcure™ tin-free curing technology. It is a high solids product with a diffusion controlled biocide release under challenging conditions. A smooth, ultra low friction surface reduces hull deterioration and improves hydrodynamic performance which enables operational flexibility in unpredictable trade. Recommended as a topcoat for immersed conditions over approved tiecoats only.

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

Typical use

Marine:
Recommended for underwater hull in drydocking and newbuilding. Specially designed as a premium solution giving flexibility in vessel trade and activity. It has high gloss and excellent colour stability providing long term aesthetics appearance. This product is suitable for extended docking intervals up to 90 months as a part of a complete coating system.

Typical trade

Designed for global unpredictable trades.

Approvals and certificates

Compliant with IMO Antifouling System Convention AFS/CONF/26 + IMO MEPC.331(76).

Additional certificates and approvals may be available on request.

Colours

Red, black

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	75 ± 2 %
Flash point	ISO 3679 Method 1	33 °C
Density	calculated	1 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	211 g/l
Hong Kong	Air Pollution Control (VOC) Regulation	US EPA Method 24	211 g/l
EU	European Paint Directive 2004/42/CE	Calculated	211 g/l
Korea	Korea Clean Air Conservation Act	Calculated	211 g/l
China	GB 30981-2020 Limit of harmful substances of industrial protective coatings	GB/T 23985-2009 8.3	239 g/l

This Technical Data Sheet supersedes those previously issued.
The Technical Data Sheet (TDS) is recommended to be read in conjunction with the Safety Data Sheet (SDS) and the Application Guide (AG) for this product. For your nearest local Jotun office, please visit our website at www.jotun.com

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	100	-	300	µm
Wet film thickness	135	-	400	µm
Theoretical spreading rate	7.5	-	2.5	m²/l

Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	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.
Brush:	May be used. Care must be taken to achieve the specified dry film thickness.
Roller:	May be used. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by volume)

SeaQuest Endura II Comp A	17	part(s)
SeaQuest Endura II Comp B	0.7	part(s)
SeaQuest Endura II Comp C	0.45	part(s)

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Thinner/Cleaning solvent

Do not add thinner.

Cleaning solvent: 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	5 °C	10 °C	23 °C	30 °C	40 °C
Surface (touch) dry	7 h	6 h	5 h	4 h	3 h
Dried/cured for immersion	44 h	36 h	24 h	20 h	20 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 5 °C for at least 2 hours. Lowest substrate temperature during the drying/curing period is 0 °C. If the temperature during drying/curing is 0 °C, the minimum time for immersion is 48 hours.

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.
If there is very high humidity or it rains after application of SeaQuest Endura II, expect an extended curing process and minimum time to immersion. Evaluate surface of coating accordingly. For instructions on wet in wet application see TSS-TI-084.

The maximum time to immersion of the applied coating is 2 weeks at all temperatures.

It is recommended to use and provide Yokohama fenders and plastic sheets with light water lubrication for FRC systems, to reduce the risk of fender damage in the first few days after application.

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

Dried/cured for immersion: Minimum time before the coating can be permanently immersed in sea water.

Induction time and Pot life

Paint temperature	23 °C	30 °C	40 °C
Pot life	45 min	45 min	20 min

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Recommended type of primer

Tie coat for the subsequent foul release coat is:
Safeguard FRC PE II
Safeguard FRC S

Additional information

Fouling release coatings are in general mechanically weaker than traditional self-polishing coatings and cautions needs to be taken to avoid mechanical abrasion after application.

Packaging (typical)

	Volume (litres)	Size of containers (litres)
SeaQuest Endura II Comp A	17	20
SeaQuest Endura II Comp B	0.7	1
SeaQuest Endura II Comp C	0.45	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

SeaQuest Endura II Comp A	24 month(s)
SeaQuest Endura II Comp B	24 month(s)
SeaQuest Endura II Comp C	12 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 applicator and operator 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 should 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

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Please observe the precautionary notices displayed in 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 sought medical attention immediately.

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 data given 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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