ECO-FRI 896SL

Product description

This is a state-of-the-art, single-component chemically hydrolysing silyl methacrylate resin antifouling coating. It delivers superior antifouling protection, ultra-low frictional resistance, and unparalleled hull performance.This antifouling effect is achieved through highly predictable and stable self-polishing properties, which also minimize hull degradation and reduce friction and speed loss. Its initial ultra-smooth surface ensures excellent dry-docking performance.It is strictly intended for use as a topcoat in submerged environments and can be applied at surface temperatures below 0°C.

Typical use

Marine: For underwater hull in drydocking and newbuilding for both sea and fresh water during outfitting. ECO-FRI896SL can be applied at sub-zero surface temperatures.

ECO-FRI896SL is an ultra-premium solution for vessels whose main focus is verified high hull performance in predictable trades, cut carbon emissions, protect biodiversity, and preserve fuel.

This antifouling coating is designed for long service periods and can be used up to 90 months as a part of a complete coating system.

Approvals and certificates

Compliant with IMO Antifouling System Convention AFS/CONF/26.

Type Approval Certificate for Antifouling Paint from the Russian Maritime Register of Shipping (RS)

Colours

Redbrown, red

Product date

Property	Test/Standard	Description
Solids by volume	ISO 3233	52±2%
Flash point	ISO 3679 Method 1	25℃
Density	calculated	1.8Kg/L
VOC-China	GB/T23985-2009(ISO11890-1)	420g/L
Touch dry（20℃）		2 h

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	75μm - 175μm
Wet film thickness	144μm - 336μm
Theoretial spreading rate	0.26Kg/m^2 - 0.61Kg/m^2

Max total DFT for multiple coats in the antifouling system: 600 μm

Surface preparation

To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Coated surfaces	New tie coat or new antifouling: Remove any contamination that could interfere with the intercoat adhesion. Exceeding maximum recoat intervals will require cleaning/abrading and/or application of additional coats, depending on condition Aged antifouling with leached layer: Removal by thorough fresh water washing at minimum nozzle pressure 200 bar.	New tie coat or new antifouling: Remove any contamination that could interfere with the intercoat adhesion. Exceeding maximum recoat intervals will require cleaning/abrading and/or application of additional coats, depending on condition. Aged antifouling with leached layer: Removal by thorough fresh water washing at minimum nozzle pressure 340 bar.

Application

Application methods

The product can be applied by

Spray:	Use air spray or airless spray.
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）

Single pack

Thinner/Cleaning solvent

Thinner: Jindun Thinner No. 102

Guiding date for airless spray

Nozzle tip (inch/1000): 21-31

Pressure at nozzle (minimum): 150 bar/2100 psi

Drying and Curing time

Substrate temperature	-10 °C	0 °C	10 °C	23 °C	40 °C
Surface (touch) dry	8h	2h	45min	30min	30min
Dry to over coat, minimum	27 h	16 h	9 h	7 h	6 h
Dried/cured for immersion	39 h	24 h	10 h	9 h	8 h

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

The dried/cured for immersion data in the above table is the time required until the product is ready for sailing. For mechanical resistance to fenders and similar equipment longer drying times may be required. Please consult the Application Procedure for further advice.

When high film thickness is applied the antifouling will stay soft longer. To enable hull roughness reading when two or more antifouling coats are applied in rapid succession it is recommended to double the minimum time for immersion.

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

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.

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

Packaging(typical)

	Weight (Kg)	Size of containers (litres)
ECO-FRI 896SL	34	20

The volume stated is for factory made colours.

Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, 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

ECO-FRI 896SL	9 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 Jindun'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 Jindun 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.

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.

Disclaimer

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

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