

# Technical Data

## SeaForce 90



Jotun Protects Property



### Product description

SeaForce 90 is a high solids hydrolysing self-polishing antifouling based on Polymeric Plasticizer Technology (patented). The performance of SeaForce 90 is achieved by a combination of unique synthetic polymers. IMO Anti-fouling System Convention compliant (AFS/CONF/26).

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### Recommended use

To be used on vessels operating in global service with drydocking intervals up to 60 months. SeaForce 90 is well suited to offer 60 months antifouling performance on all underwater areas on vessels trading at high frequency.

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### Film thickness and spreading rate

	Minimum	Maximum
Film thickness, dry ( $\mu\text{m}$ )	75	175
Film thickness, wet ( $\mu\text{m}$ )	130	300
Theoretical spreading rate ( $\text{m}^2/\text{l}$ )	7,7	3,3

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### Physical properties

Colour	Standard; Dark Red & Light Red (Made-To-Order; Blue, Black & Green)
Solids (vol %)*	58 $\pm$ 2
Flash point	28°C $\pm$ 2 (Setaflash)
VOC	3,34 lbs/gal (400 gms/ltr) USA-EPA Method 24 370 gms/ltr UK-PG6/23(97). Appendix 3

\*Measured according to ISO 3233:1998 (E)

Hong Kong rules:

Category of paints - Antifouling coatings; VOC 400 gms/ltr HK EPD method (Ready to use); Exempt compound - N/A; Specific gravity: 1.73; Both VOC and Specific gravity values provided are typical values, subject to changes when different colour involved.

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## Surface preparation

### Coated surfaces

Prior to paint application, all surfaces should be clean, dry and free from contamination. Remove surface contamination by high pressure fresh water cleaning. To be applied on a clean, dry approved primer/undercoat or intact self-polishing antifouling.

### Other surfaces

The coating may be used on other substrates. Please contact your local Jotun office for more information.

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## Condition during application

The coating could be applied down to -15°C surface temperature. Temperature of the substrate should be minimum 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is required in confined areas to ensure proper drying and curing. The coating should not be exposed to oil, chemicals or mechanical stress until it is thoroughly dried. During application and the initial drying of the coating, the coating should not be exposed to high humidity as this can result in loss of gloss and discolouration.

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## Application methods

**Spray** Use airless spray

**Brush** May be used but care must be taken to achieve the specified dry film thickness.

**Roller** May be used. However when using roller application care must be taken to apply sufficient material in order to achieve the specified dry film thickness.

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## Application data

**Mixing ratio (volume)** Single pack.

**Thinner/Cleaner** Jotun Thinner No. 7

### Guiding data airless spray

**Pressure at nozzle** 15 MPa (150 kp/cm<sup>2</sup>, 2100 psi.).

**Nozzle tip** 0.53 - 0.78 mm (0.021 - 0.031").

**Spray angle** 65 - 80°

**Filter** Check to ensure that filters are clean.

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## Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

\* Good ventilation (Outdoor exposure or free circulation of air)

\* Typical film thickness

\* One coat on top of inert substrate

Substrate temperature	-10°C	0°C	10°C	23°C	40°C
Surface dry	5 h	2 h	45 min	30 min	30 min
Through dry	24 h	12 h	6 h	4 h	3 h
Dry for launching <sup>1</sup>	48 h	36 h	12-22 h	10-20 h	8-16 h
Dry to recoat, minimum <sup>2</sup>	48 h	36 h	9 h	7 h	6 h

<b>Substrate temperature</b>	<b>5°C</b>
<b>Surface dry</b>	60 min
<b>Through dry</b>	8 h
<b>Dry for launching <sup>1</sup></b>	12-24 h
<b>Dry to recoat, minimum <sup>2</sup></b>	12 h
<b>Dry to recoat, maximum</b>	

1. The interval indicates the time which normally occurs in a drydocking situation where the drying time depends on the total film thickness of primer/antifouling applied. The drying time will increase with increasing film thickness.
1. The substrate should be dry and free from any contamination prior to application of the subsequent coat.
2. When applying at low temperatures (below 10°C), high humidity and low ventilation will increase the drying time. As antifouling is physically drying paint, good ventilation is required especially on the flat bottom and in sea chests. If thinning is required at these lower temperatures, special attention should then be given to the application reduce the risk of sagging.

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

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### **Recommended type of primer:**

Anticorrosive primer system suitable for purpose with Safeguard Universal ES or Safeguard Plus as a sealer coat/tie-coat.

**Other systems may be specified, depending on area of use**

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### **Storage**

The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed. Shelf life at 23°C: 18 months for standard colour(s) and 6 months for other colour(s), if available. Thereafter the paint quality is subject to re-inspection.

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### **Handling**

Handle with care. Stir well before use.

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### **Packing size**

20 litre container.

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### **Health and safety**

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale 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.

**For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.**

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**DISCLAIMER**

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product can be used under conditions beyond our control, we can only guarantee the quality of the product itself. We also reserve the right to change the given data without notice. Minor product variations may be implemented in order to comply with local requirements.

If there is any inconsistency in the text the English (UK) version will prevail.

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