

Sea King Fouling Release

Biocide free, low friction, fouling release silicone epoxy coating

Product Description

Sea King Fouling Release is a pioneering biocide free silicone epoxy finish. Low friction, superior release and long-lasting nanotechnology driven coating that prevents fouling organisms from firmly adhering and provides self-cleaning properties. Contains no tin (IV). Based on PolyDiMethylSiloxane modified epoxies, as the latest advance in marine coatings. Apart from its amphiphilic behavior and enhanced durability, it is coupled with glycol units to finely tune surface tension values that repel proteins or microorganism biological anchors. Saves fuel costs by reducing drag coefficient. Even though it is a fouling release coating, elements of antifouling performance are evident, without self-polishing erosion.

Recommended Use

For use at newbuilding or maintenance and repair below waterline as a fouling release coating for fiberglass boats, steel and aluminum surfaces.

Technical Specifications

Type	▶	Modified Silicone - Epoxy Polyamide
Color	▶	Red Brown / Red / Black / Blue / White
Components	▶	Base A & Hardener B
Thinner/Cleaning agent	▶	None Required / NanoPhos Thinner A
Mixing ratio	▶	4.6:1, A: B per volume
VOC (Volatile Organic Compounds)	▶	< 300 g/L
Solids (% vol)	▶	70±3
Touch Dry Time	▶	6h @20°C / 68°F (*)
Dry Through Time	▶	12h @20°C / 68°F (*)
Min. Recoat Interval	▶	10h @20°C / 68°F (*)
Induction Time	▶	15min @20°C / 68°F (*)
Water Resistance	▶	Excellent
Abrasion Resistance	▶	Excellent
Pot Life	▶	1.5h @20°C / 68°F (*)

(*) Increases in temperature and/or humidity will shorten working time, drying time and recoating time.

Surface Preparation

All surfaces should be clean, dry and free from oil, grease which can cause delamination/flaking of the paint layer applied. Remove dust and rust or other corrosion products as they result in loss of adhesion and blistering respectively. Depending on the surface clean the substrate with water cleaning, pressured hot or cold water, or with mechanical cleaning, with the use of abrasive tools or blast cleaning.

Recommended previous coat: NanoPhos' **EPR** Epoxy Primer.

NanoPhos S.A.

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Application Instructions

Before application, test the atmospheric conditions in the vicinity of the substrate for the dew formation according to ISO 8502-4. Air temperature: 8 - 35 °C [46.4 - 95°F], Substrate temperature: 8 - 45 °C [46.4 - 113°F], Relative Humidity (RH): < 75%.

Material should be kept in room temperature (20°C/68°F) for at least 24 hours prior to application.

Mixing

Mix the entire contents of the base with the hardener. If you're using a separate mixing bucket, mix carefully ensuring that all contents of the base and hardener containers are poured. Mix using an electric mixer on low speed for about two minutes or until the two ingredients are completely mixed.

Apply the coating when the substrate temperature is at least 3 °C [5 °F] above the dew point with conventional spray, airless spray or brush.

These products are moisture sensitive, and they should not be opened until just before they are needed.

Application Equipment

Conventional Spraying ▶ Nozzle tip: 1.8 – 2.2, Pressure at nozzle: 3 – 4bar/ 43 – 58psi

Airless Spray ▶ Minimum pump: 45:1, Nozzle tip: 17-21, Nozzle output: 1.15 – 2.2, Pressure at nozzle (minimum): 180bar/2610psi

Brush ▶ Recommended application method with long flexible bristles and for stripe coating or small narrow areas.

Application

Check that the air compressor pressure is in the recommended range depending on the type of spraying gun. It is highly recommended to install a pressure gauge between the air compressor and the spraying gun. Regulate the spray gun; the airflow pressure and the product flow to meet the consumption rate of 110 – 145 mL/m². As a preliminary test, you can use a measuring cup to check the exact amount of product for a unit of time. Initiate the application by first allowing some material to be sprayed outside the application area. Once you have steady flow, you may proceed spraying on the actual application surface.

Apply one coat of the product to meet the recommended WFT in even parallel passes. Overlap each pass to avoid bare areas, pinholes or holidays.

Upon completion, immediately clean the equipment using NanoPhos **Thinner A**.

Do not apply the coating if the substrate is wet or likely to become wet or if the weather is clearly deteriorating or unfavorable for application or curing.

Adverse weather conditions during or after the product application may affect the properties of the coating.

This product is intended for professional use only. Applicators and operators must be trained, experienced and have the ability and equipment to mix / mix and apply coatings correctly and in accordance with NanoPhos technical documentation. Applicators and operators must use appropriate personal protective equipment when using this product. This guideline is given based on current knowledge of the product. To be used in well-ventilated conditions.

Coverage

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FILM THICKNESS PER COAT

	Minimum	Maximum	Recommended
Dry Film Thickness (µm):	75	140	100
Wet Film Thickness (µm):	110	200	145
Spreading Rate (m ² /L):	9	5	7

Spreading rate depends on substrate roughness, painting conditions and application method.

Additional Information

Paint System

Please contact NanoPhos Marine for more information.

Storage

Store in the original closed packaging, in a well-ventilated area, at a temperature of 5°C [41°F] to 35°C [95°F] for up to 18 months from production date, away from sunlight and frost.

Health and Safety

Read the product label before use. The Safety Data Sheet is available on www.NanoPhos.com or on request by contacting NanoPhos by email: info@NanoPhos.com or by phone: 2292069312.

Available Packaging

- 5L Unit (Total 5L in two metal containers, 4.6 :1 | A:B per volume)
- 20L Unit (Total 20L in two metal containers, 4.6 :1 | A:B per volume)

DISCLAIMER

The Technical Data Sheet recommendations for the use of NanoPhos' products are based on our scientific knowledge, laboratory studies and long-term experience. The information provided must be considered indicative and subject to constant review based on specific conditions and each practical application. The suitability of the product should be examined in each case for specific use and the end user bears full & exclusive responsibility for any side effects that may arise from the incorrect use of the product.

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