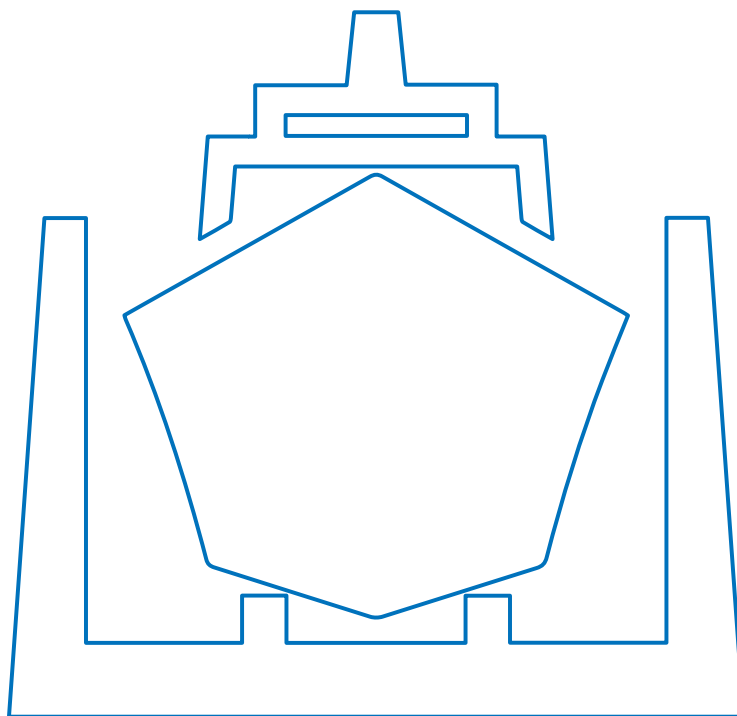


Sustainable shipping through intelligent coatings





BIOCIDE
FREE



EXTREMELY
LOW ROUGHNESS



LONG LASTING HULL
PERFORMANCE



OPERATIONAL
FLEXIBILITY

SeaKing

FOULING RELEASE COATING

Sea King is a patented nanoengineered super-hydrophobic and ultra-smooth coating designed for hull performance, ensuring significant fuel savings and reduction of CO₂ emissions.

SeaKing

FOULING RELEASE COATING

PRODUCT DESCRIPTION

In contrast to conventional «silicone epoxy» hull coatings that encage liquid silicone in an epoxy matrix, **SeaKing** patented coating formulation technology involves using amino-silane molecules as hardeners for the epoxy base. Practically, silicone becomes the backbone of the binder (polymer) structure and not just an additive to the coating formulation. The above chemical modification sets SeaKing as the genuine fouling release formulation. The resulting coating is not conventionally «rubbery» but a hard coating that can withstand an ocean-going vessel hull's mechanical or abrasion loads. At the same time, dry-docking roughness values, which can reach roughness R_z values as low as 10 micrometers, remain unaffected during the whole operational life.

SeaKing remains biocide-free. Retention of biological growth is minimized by fine-tuning surface tension, which is set exactly as low as 23 mN/m. This value corresponds to the weakest of Baier's curve fouling retention diagram and underlines the resulting coating's cleanability, even in prolonged idle conditions. Low surface tension practically repels water, reducing friction coefficient values and favoring the entrapment of air pockets in the boundary layer of the hull structure and sea/freshwater. Minimized friction coefficient values are further assisted by the low roughness values, leading to the denigration of viscous drag and the maximization of fuel efficiency.

KEY ADVANTAGES

- It is a hard coating that can withstand high abrasion loads.
- It is biocide-free.
- It presents Roughness values $R_z < 20\mu\text{m}$ throughout its operational life.
- It offers finely tuned surface tension to minimize biological growth.
- It saves fuel up to 10% and minimizes carbon dioxide emissions.

TECHNICAL DATA

Type	Amino silane Epoxy Fouling Release
Components	Base A & Hardener B
Colours	Red Brown, Red, Blue, Black, White
Mixing Ratio (v/v, A:B)	5:1
Theoretical Coverage Rate	10 m ² /L - 100µm
Volume of Solids	98 ± 2 %
VOC	< 10 g/L
Touch Dry Time	3 h @ 23°C
Minimum Time to Immersion	1d @ 23°C
Min. Recoat Interval	6h @ 23°C
Service Time	Up to 60 Months



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