

Philadelphia Coatings LLC

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Product Data Sheet

ANTIFOULING ranges

“ASTRA SEA SPEED TIN - FREE SPC”

Color: Light Oxide Red PHF-3009

Quality: balanced

Highly Sophisticated:

This application is directed with **Biocides Enhanced by Silver, Copper, or Zinc Ions**

Product Information

Astra Sea Speed Tin-Free SPC is a balanced hybrid, low-friction, self-polishing SPC antifouling. Its high-performance technology is comprised of high solids with insoluble modified hybrid acrylate and dispersed Copper Cu_2-SiR_3 (Pyrrithion). Astra Sea Speed Tin-Free SPC is designed for vessels undergoing heavy fouling, long-range service, and travelling at medium speed. Tin-free A/F is certified to comply with DNV-GL Approval for Anti-fouling Systems on ships. Astra Sea Speed Tin-free SPC is certified as TBT-Free A/F by Lloyd's Register as well. Astra Sea Speed Tin-free SPC can also be applied on naval vessels, coastal cruisers, and deep sea ocean vessels. Expected service life period ranges from 24, 36, 60 months. Displays very good compatibility with various well known manufacturers.

Recommended Purpose

To be used on vessels operating on worldwide routes with focus on maintaining speed. For application at new building or maintenance. Suitable protection on hull under all fouling conditions. Highly durable up to 60 months of service.

Physical Properties

Sheen: Matt

Color: Light Oxide Red PHF-3009 quality balanced. Other colors upon request

Astra Sea Speed Tin free SPC Commercial Type is available upon request

Volume Solids (%): 60 ± 2

Theoretical Coverage: 6.20 m²/Lit at 100 microns dry

Recommended Film Thickness: 75-175 microns dry

Recommended Film Thickness: 120-280 microns wet

Flash Point: 28 ± 2 °C

VOC: 366.00 g/Lit (material as into the container)

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Application Data

Mixing Ratio: Single pack product which should be stirred thoroughly by a stirring machine before its application.

Thinner: Not recommended. The material is ready for use, under special conditions use Thinner PH 400, max 5% by volume.

Painting Method: Airless spraying is recommended. Tip range 0.46mm-0.66mm and 0.66-0.79, blowing pressure should not be less than 141kg/cm² (2000psi). May be required to add thinner. Use of proper equipment and compliance with safety precautions in accordance with the selected method and work environment. Emergency contact numbers are available worldwide upon any request.

Cleaning: Power tool cleaning and Cleaners with Thinner PH 400.

Drying and over coating Conditions

Temperature of basis material	5°C	23°C	30°C
Touch Dry	2 hours	1 hour	30 minutes
Repainting interval (Min)	12 hours	6 hours	5 hours
Refloating time from the application of the last coat (Min)	12 hours at 20°C		
Repainting interval (Max)	Exposure time to atmospheric environment should be max 30 days. All information provided is for guidance only. The actual time is subject to change depending on actual climate and environment conditions.		

Coating Specification

Astra Sea Speed Tin-Free SPC should always be applied under our recommended coating system. To ensure strong adhesion and quality A/F performance, the surface should be dry and free from contamination by any existing layers of PhilaDur, PHILA/VIN CL, link coat/sealers or various anti-foulings. Application must comply with the specific recommendations and provisions of the Philadelphia Coatings LLC Technical Department. Any liability is limited to the quantity and value of the A/F provided, assuming prior approval in writing by Philadelphia Coatings LLC.

Surface Preparation

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.



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Minimum recommended surface preparation:

Substrate	Minimum	Recommended
Carbon steel	St 2 (ISO 8501-1)	Sa 2 (ISO 8501-1)
Stainless steel	The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to the surface and to remove all polish from the surface.	Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Galvanised steel	The surface shall be clean, dry and appear with a rough and dull profile.	Light brush blasting using nonmetallic abrasive leaving a clean, rough and even pattern.
Coated surfaces	Clean, dry and undamaged compatible coating (ISO 12944-4 6.1.4)	Clean, dry and undamaged compatible coating (ISO 12944-4 6.1.4)
Concrete	Low pressure water washing to a rough, clean, dry and laitance free surface.	Minimum 4 weeks curing. Moisture content maximum 5 %. Prepare the surface by means of enclosed blast shot or diamond grinding and other appropriate means to abrade the surrounding concrete and to remove laitance.

Optimum performance, including adhesion, corrosion protection, heat resistance and chemical resistance is achieved with recommended surface preparation. For other surface treatments, please consult with Philadelphia Coatings LLC.

Storage

Less than 24 months at 20°C, stored at dry, shaded and ventilated condition. The container/paint must be kept sealed and away from heat and ignition.

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.

Color Variation

When applicable, products primarily intended for use as primers or antifoulings may have slight color variations from batch to batch. Such products may fade and chalk when exposed to sunlight and weathering. Color and gloss retention on topcoats/finish coats may vary depending on type of color, exposure environment such as temperature, UV intensity etc., and application quality. For further information, please consult with Philadelphia Coatings LLC.

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Pack Size

Standard packing of 5.3 Gal. (20 Lit) pail. If other packing specifications are needed, please consult with Philadelphia Coatings LLC.

Health and Safety

Prior to use, obtain, consult and follow the Material Safety Data Sheet for this product concerning health and safety information. Read carefully and conform to precautions on MSDS and packing vessels. To avoid eye and skin contact, tools such as gloves, goggles, face masks etc. should be used for works (proper safety measures should be taken according to construction methods and circumstances). All work with the product must be carried out according to all relevant national health, safety, and environment standards and codes. This product is for professional use only.

Limitation of Liability

All information is given for guidance only and is subject to regional variation depending upon local climate and environmental condition. An excessive film thickness delays the final curing and create sagging. Over-coating interval will increase with the number of paint layers and the thickness of the paint film. For recommended paints at special circumstances, please consult with our Philadelphia Coatings LLC. Apply in good weather. The relative humidity must not exceed 80% temperature of the surface to be coated must be at least 3°C above the dew point. All data from the tests is obtained under lab conditions, so Philadelphia Coatings LLC won't bear any liabilities from the condition whether the data could reflect the objective status of the actual application circumstance or not.

Disclaimer

The information in the product manual is based on our experiences from tests and practice. For the application without our knowledge, we could only make sure that our products themselves are warranted. We may modify the data in this product manual according to our continuous development and experience accumulation without advanced notice.