



“Ultima Silicon Sealer PH-SEAL”

Elastomeric Tie-Coat

Product Information

Ultima Silicon Sealer PH-SEAL is a three pack, silicone elastomer tie-coat for fouling release system, to promote adhesion between the specified priming system and Ultima Silicone PH-SIF finish coat. Also is used as the primer for Ultima Silicone PH-SIF finish coat on rubber substrates. For use at Newbuilding or Maintenance & Repair.

Ultima Silicon Sealer displays very good compatibility with various well-known producers.

Recommended Purpose

Ultima Silicon Sealer is suitable for any type of vessel as a tie-coat, primer. It is also well-suited for use on propellers.

Physical Properties

Colors: White, Gray, Black, Pink

Sheen: N/A

Volume Solids (%): 55 ± 2 test / standard ISO 3233:1998

Theoretical Coverage: 5.60 m²/Lit at 100 microns DFT, allow appropriate loss factors

Typical Film Thickness: Range: 100 microns dry (175 microns wet) may be specified depending upon end use.

Flash Point: 42 ± 2 °C test /standard ISO 3269 method I

REGULATORY DATA: VOC

377 g/lit as supplied (EPA Method 24)

280 g/kg of liquid paint as supplied. EU Solvent

Emissions Directive (Council Directive 1999/13/EC)

373 g/lit Chinese National Standard GB23985

Note: VOC values are typical and are provided for guidance purposes only. These may be subject to variation depending on factors such as differences in color and normal manufacturing tolerances.

This product does not contain organotin compounds acting as biocides and as such is in compliance with the International Convention on the Control of Harmful Anti-fouling Systems on ships as adopted by IMO in October 2001 (IMO document AFS/CONF/26).

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Product Data Sheet

Application Data

Mixing Ratio: Basis (A) 12.6 part/weight, curing agent (B) 3.2 part/weight, Curing Agent (C) 2.2 part/weight.

Readiness Time: 20 minutes in an ample temperature.

Thinner: Not recommended. The material is ready for use, under special conditions use Thinner PH 300, max 5% by volume. Consult Philadelphia Coatings LLC Technical Department about thinning.

Application requirements: To prevent condensation, ensure the surface is clean, dry, and at least 3°C [5°F] warmer than the dew point. For effective mixing, pumping, and spraying, the ideal paint temperature is 20°C [68°F]. During application, the product temperature should be maintained above 15°C [59°F].

Relative Humidity: During the curing process, the relative humidity should be between 40% and 85%. During the application process, the relative humidity should also be maintained between 40% and 85%.

Application notes: To prevent contamination of adjacent areas, it is advisable to use masking to avoid causing fish eye. For guidance on applying silicone systems, please contact our Technical Department.

Painting Method:

Airless spraying is our recommendation. Tip range 0.36mm-0.51mm, blowing pressure should not less than 211kg/cm² (3000psi).

Application by brush is recommended for touch up areas only. Multiple coats may be required to achieve specified film thickness.

Application by roller is recommended for small areas only. Multiple coats may be required to achieve specified film thickness.

Actual safety measures and precautions are very important from the selected method and environment work.

Emergency Contact Numbers are available World Wide upon any request.

Power tool cleaning and Cleaners with Thinner PH 300.

Drying and over coating Conditions

Temperature of basis material	5°C	15°C	25°C	35°C
Touch Dry [ISO 9117/3:2010]	9hrs	7hrs	4hrs	90mins
Hard Dry [ISO 9117-1:2009]	24hrs	20hrs	16hrs	8hrs
Pot life	3hrs	2hrs	1hr	30mins



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Overcoating interval for Philadur 06/06 DFT up to 100µm					
Overcoating with...	Interval	5°C	15°C	25°C	35°C
Ultima Silicon Sealer	Minimum	24 hours	16 hours	8 hours	6 hours
	Maximum	5 days	4 days	3 days	3 days

Note:

- See PHILADUR 06/06 Datasheet for full details

Overcoating interval for Erica Silicone PH-SIF DFT up to 150µm					
Overcoating with...	Interval	5°C	15°C	25°C	35°C
Ultima Silicone PH-SIF	Minimum	24 hours	20 hours	16 hours	8 hours
	Maximum	20 days	14 days	5 days	2 days

Note: For application for Ultima Silicone PH-SIF below 10°C consult Philadelphia Coatings LLC Technical Department.

Coating Specification

Ultima Silicon Sealer should always be applied to a recommended coating system. The surface should be dry and free from contamination of any existing layers of Phila VIN/CL, tie coat/sealers or various A/Fs, to secure good adhesion and good performance. Specific recommendations and statements should be agreed and approved by Philadelphia Coatings LLC Technical Department in writing to do so, as there is a limit of liability only for the supplied quantity and value of the antifouling.

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 (SSPC-SP1).



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Minimum recommended surface preparation:

Substrate	Minimum	Recommended
Carbon steel	St 2 (ISO 8501-1)	ISO standard 8501-1 (2007) - Sa 2 ½ 8501-4WJ-2
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

Self-life at least 24 months for the base and at least 12 months for the curing agent, when stored cool and 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 Base 12.6 Lit pail, curing agent clear 3.2 Lit pail and curing agent black 2.2 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, such tools as gloves, goggles and face mask etc. should be used for works (proper safety measures should be taken according to construction methods and circumstances). All works with the product must be carried out according to all relative 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 creates sagging. Over coating interval will increase with the increment of the number of paint layer 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 are obtained at the special lab circumstance, so Philadelphia Coatings LLC, won't bear any liabilities from the condition whether the data could reflect the objective status at the actual application circumstance or not.

Disclaimer

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