



“PHILASEAL PHE 06/09”

Vinyl/Acrylate Epoxy Hybrid tie coat

Product Information

Two-pack polyamide cured vinyl/acrylate, surface tolerant, epoxy based coating, tie coat/sealer between epoxy primers and antifouling systems. Can be used as tie coat for a wide range of topcoats. An acrylic/vinyl epoxy formulated to protect and be the intermediary tie coat for antifouling or various topcoats. Excellent direct to metal applications and corrosion resistance. Outstanding toughness and durability. Ideal for use on all similar surfaces where a heavy-duty coating is required. Suitable over various primers on carbon steel, galvanized and stainless steel substrates. It can be applied at subzero surface temperatures.

PhilaSeal PHE 06/09 displays very good compatibility with various well known producers.

Recommended Purpose

Tie coat sealer for a wide range of Philadelphia Coatings antifouling products. Can be used as primer for outside hull, superstructure, decks, machinery and other steel surfaces. Do not mix with other colors, paints or solvents.

Physical Properties

Sheen: Semi-Gloss

Colors: Redbrown, Gray, other colors

Volume Solids (%): 63 ± 2

Theoretical Coverage: 7.80 m²/Lit at 80 microns dry / 125 microns wet

Recommended Film Thickness: Over 100 microns dry by 1 coat.

Recoat able: Over 24 hours.

Density: 1,35 kg/l

Flashpoint: Mixed product >27°C

VOC: 364.00g/Lit (material as into the container)

ASTM D412 for Elongation and Tensile Strength

ASTM D4060 for Abrasion Resistance

Application Data

Mixing Ratio: Basis 5 part per/volume, Curing Agent 1 part/volume.

Readiness Time: 15 minutes in a proper temperature.

Pot Life: 2 hours at 23°C

Curing Time: Within 3 days at 23°C (fully cured).

Thinner: Not recommended. The material is ready for use, under special conditions use thinner for epoxy PH 300, max 5% by volume.

Philadelphia Coatings LLC

Americas Office: 6 Georgian Row, The Woodlands, Texas, TX 77380, USA
Tel: +1 832-948-5588
E-mail: info@philacoatings.com
Website: philacoatings.com



Product Data Sheet

Painting Method: Airless spraying is recommended. Tip range between 0.48mm-0.66mm (21 Thou). Blowing pressure shouldn't be less than 141kg/cm² (2000psi). It may be required to add thinner. Use proper equipment and comply 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 for epoxy PH 300.

Drying and Over-Coating Conditions

Temperature of basis material	0°C	5°C	23°C	30°C
Touch Dry	12 hours	8 hours	2 hours	1 hour
Hard Dry	30 hours	24 hours	10 hours	6 hours
Repainting interval (Min)	30 hours	24 hours	10 hours	6 hours
Repainting interval (Max)	Always under 30 days, depending on environment temperature. Best use is between 2 days - 7 days			

Coating Specification

Long overcoat period if temperatures are around freezing point. Proper selection of the systems, coating application procedures and surface preparation are made depending on actual existing film. Best specific design factors and conditions are tested in a controlled laboratory. Consult with Philadelphia Coatings LLC Technical Department before and throughout testing process.

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.

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.

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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

Circa 18 months at 25°C, stored at dry, shaded and ventilated condition. The container/paint, must be kept sealed and away from heat and ignition sources.

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.

Pack Size

4 Gal. (15 Lit) pail, agent 0.8 Gal (3,785 Lit) tin. If other packing specifications are needed, please consult with Philadelphia Coatings LLC.

Shipping weight

4 Gal. (15 Lit) 65.44 lb pail, agent 0.8 Gal (3,785 Lit) 4.2 lb tin.

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 and face mask etc. should be used during work with product (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.

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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 number of paint layers and the thickness of the paint film. For recommended paints at special circumstances, please consult with 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 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.