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## Product Data Sheet

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# “PHILADURE WP PHDE”

## Epoxy Waterborne

### Product Information

PhilaDure WP PHDE Epoxy Waterborne is a two-component epoxy paint dilutable with water.

Product is an easy to apply universal anti-carbonatation topcoat, having the following excellent features:

- Chemical resistance
- High adhesive and filling power
- The applied and dried film is non absorbing
- Anti-dust
- Mould-proof
- Bactericidal
- Easy to clean and disinfect with cleansing compounds.

PhilaDure WP PHDE Epoxy Waterborne displays very good compatibility with various well-known producers.

### Recommended Purpose

Product is suitable for concrete – masonry surfaces, as basecoat for walls and floors; as topcoat for rolled or orange peeled coatings. For hospitals, schools, barracks, prisons, kitchens, food industries, laundries, garages, bars, and above all for cheese factories, oil-mills, pasta factories etc. Product is recommended for cycles resisting to chemical products – constant immersion and as non-toxic basecoat for food containers.

### Physical Properties

**Sheen:** Semi-Gloss - Matte

**Colors:** White – Light gray

**Volume Solids (%):** 45 ± 2

**Theoretical spreading rate Sq.m/L – gr/m<sup>2</sup>:** 9 Sq.m./L – 162 g/Sq.m.

**Typical thickness wet/dry micron:** 110 wet / 50 dry

**Flash Point:** Uninflammable

**Density Kg/Lit.:** 1,45 ± 0,05

**Viscosity 25°C:** 100 sec. Ford 4 base + hardener

### Application Data

**Mixing Ratio:** Base 80, Curing Agent 20 by weight.

**Readiness Time:** 15 minutes in a proper temperature.

**Thinner:** Water

**Pot Life:** 2 - 3 hours

**Painting Method:**

Brush: 5 - 15% thinning

Roller: 10 – 12% thinning

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Spray: 15 – 20% thinning viscosity 35 sec. Ford 4. Nozzle's diameter 1,7 - 1,9 mm, Air pressure 4,5 Pa (atm).

Airless spray: 6 – 10% thinning – visc. 100 sec. Ford 4.

Compression Ratio 30 : 1. Nozzle's diameter 0,4 - 0,6 mm, Air pressure 130 – 150 Pa (atm).

Use proper equipment. Actual safety measures and precautions are very important from the selected method and environment work. Emergency Contact Numbers are available Worldwide upon any request.

The product is to apply in any cases when the presence of products similar to thinners is dangerous for the environment and people. Product is not recommended for direct exposure to the sun; acids; concentrated bases; aromatic solvents.

**Tender Item:** Application of PhilaDure WP PHDE, epoxy polyamide paint in water emulsion, to be applied in two coats over masonry – concrete – iron – wood, with a consumption of 250 g/Sq.m. per coat.

### Optimal Application Conditions:

The temperature of the substrate should be at least 3°C above the dew point of the air. Temperature and relative humidity should be measured near the substrate. The maximum recommended surface temperature is approx. 40°C. Higher steel temperatures are acceptable provided dry-spray is avoided by proper spray application and extra thinning if required. In extreme cases it may be necessary to reduce film thickness to avoid sagging. When applying the paint in confined spaces, provide adequate ventilation during application and drying. The temperature of the mixed paint should be at least 15°C, otherwise extra solvent may be required to obtain a proper application viscosity.

### Drying and Over coating Conditions:

Temperature of basis material	25°C
Untouched (1)	3 hours
Dry to the touch	12 hours
Absolutely dry (2)	24 hours
Min./ Max. overcoating times	24 hrs. / no limitation

(1) The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, preceding paint system etc.

(2) The surface should be dry and free from contaminants prior to overcoating. The best intercoat adhesion is achieved when the subsequent coat is applied before the preceding coat is fully cured. After prolonged exposure it may be necessary to roughen the surface to ensure intercoat adhesion. When recoating with single pack products, maximum recoat interval is limited to 16-24 hours. When in doubt, consult with Philadelphia Coatings LLC Technical Department.

### 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.



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### 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.

#### New iron:

Clean and properly primed with single component universal primer or double component epoxy primer.

#### Painted iron:

Clean, sand and remove any chalking parts; coat the exposed iron with single component universal primer or double component epoxy primer and apply one or two coats of PhilaDure WP PHDE Epoxy Waterborne.

#### Galvanized iron:

Well cleaned and primed with zinc phosphate primer and apply one or two coats of PhilaDure WP PHDE Epoxy Waterborne.

#### New wood:

Well cleaned and sanded, apply a first 20% water thinned coat of PhilaDure WP PHDE Epoxy Waterborne. After drying, sand the wood's hair and apply one or two coats of PhilaDure WP PHDE Epoxy Waterborne.

#### Old wood:

Sand well and remove any peeling parts. Clean and apply one or two coats of PhilaDure WP PHDE Epoxy Waterborne.

### 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.

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### Storage

Circa 12 months at 25°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.

### Pack Size

Kg 5 - Kg 15 drum. If other packing specifications are needed, please consult with Philadelphia Coatings LLC.

### Shipping weight

Kg 5 - Kg 15 drum.

### 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.

### 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 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.