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Product Data Sheet •

"PHILA ATOXATRIA PHE 06/03"

For Potable Water Tanks

Product Information

High thickness coating, approved for drinking water and food solutions. Phila-Atoxatria is a double-component, non toxic, epoxy-polyamide resins based coating, without solvents, with stable pigments and waterproof braking effect, providing the product with high chemical resistance to eatable oil, drinking water, liquid (oil, vegetables, beer, etc...) or solid foodstuffs (wheat, Indian corn, fodder, etc.). Excellent mechanical resistance, glossy aspect, it doesn't adulterate foodstuffs' taste or odour. It is suitable for sterile and hospital environments.

Phila Atoxatria PHE 06/03 displays very good compatibility with various well-known producers.

Recommended Purpose

Product is suitable for reservoirs or tanks made of iron, concrete, galvanized sheet, prefabricated cement. It is recommended for constant immersion in drinking water, wine, beer, vegetable oils, solid substances, cereals, corn, starchy food, fodder.

Physical Properties

Sheen: Gloss

Colors: White, red, yellow, beige Volume Solids (%): 98 ± 2

Theoretical spreading rate Sq.m/L - gr/m2: 4 Sq.m./l. - 400 g/Sq.m. for two coats

Typical thickness wet/dry micron: 255 wet / 250 dry

Flash Point: 50 °C

Density Kg/Lit.: 1,55 ± 0,05

Viscosity 25°C: 3000 + 1000 mpa s

Application Data

Mixing Ratio: Base 85, Curing Agent 15 by weight.

Readiness Time: 15 minutes in a proper temperature.

Thinner: Epoxy Thinner PH 300, non toxic thinner or ethyl alcohol

Pot Life: 40-50 minutes at 20 °C

Painting Method:Brush: 0 - 5% thinning

Roller: 2 – 5% thinning – not very suitable

Spray: Not suitable to reach the typical thickness

Airless spray: 2-7% thinning. Nozzle's diameter 0,6 - 0,8 mm. Compression Ratio 45:1-60:1 Exit pressure 170-210 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.

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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	10°C	25℃	35℃
Untouched (1)	36 hours	15 hours	8 hours
Absolutely dry (2)	72 hours	24 hours	18 hours
Over-application Minimum	36 hours	24 hours	18 hours
Maximum	10 days	4 days	2 days

- (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.

Product is not recommended for immersion in alcohol, concentrated acids and alkali, ammonia, solvents.

Tender Item:

Application of Phila-Atoxatria, non toxic, epoxy-polyamide resins based topcoat, with braking effect pigmentation over internal surfaces of iron reservoirs and concrete tanks, containing liquid or solid foodstuffs, with a consumption of 0,250 l/Sq.m., excluded practical operating loss.

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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New iron:

Sand-blast until the iron is exposed, with degree 2 ½ of Svensk scale - Standard SIS 1967 (SPCC SP 5) and apply, PhilAtria Plastofond AS, double component epoxy primer, or directly Phila-Atoxatria over the metal.

Painted iron:

Remove mechanically the old paintwork. Sandpaper to obtain a good adhesive power, double component epoxy primer, putty any imperfections with Phila epoxy putty and apply two or more coats of Phila-Atoxatria, until a minimum thickness of 250 dry micron is reached.

New concrete, masonry and cement mixtures:

Check that the surface is dry and has seasoned for at least 28 days. Remove any peeling or chalking parts, by staking or sanding the surface. Apply one coat of strengthening, double-component, water based primer PhilaDure WP PHDE. Putty any imperfections with Phila epoxy putty (cracks and holes), sand, if necessary and apply Phila-Atoxatria with a minimum thickness of 210 micron dry film, and a consumption of 0,400 kg/Sq.m.

Coated and partially deteriorated concrete, masonry and cement mixtures:

Value each time the coating's adhesive power over the surface. If the chalking parts are below 10%, it is possible to remake the surface, otherwise it is highly recommended to remove the old coating by sandblasting or staking or by any other proper system. Anyway, a double-component, strengthening, hydro-dilutable primer PhilaDure WP PHDE is to apply. Even out any imperfections (cracks and holes) with an epoxy putty, sand, apply the insulating primer over puttied and uncoated areas. After drying, apply Phila-Atoxatria with a minimum thickness of 210 micron dry film, with a consumption of 0,400 kg/Sq.m.

Application notes:

Phila-Atoxatria, as any other epoxy product, chalks if exposed to UV rays. Do not apply at temperatures below + 10 °C and above + 35 °C, with air relative humidity below 65%, with higher humidity and lower temperatures. The applied film tends to whiten on the surface, but this phenomenon does not reduce the product's chemical and mechanical resistance. Phila-Atoxatria is not to be applied over surfaces with salt efflorescence or osmotic rising damp, otherwise it will not adhere to the surface. Before applying Phila-Atoxatria, mix properly the base and the hardener. Eventually pour the mixture in a clean tin and go on blending. This operation is necessary to avoid having non mixed product in the tin.

<u>WARNING</u>: the product without the proper hardener ratio does not harden and does not reach the proper chemical resistance features. Phila-Atoxatria is to apply within 1 hour from preparation.

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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.

Storage

Circa 24 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

Lt 3 - Lt 6 - Lt 12 drum. If other packing specifications are needed, please consult with Philadelphia Coatings LLC.

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Shipping weight

Lt 3 – Lt 6 – Lt 12 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 will not 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.

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