BERGER PROTECTON
PROTECTIVE COATINGS DIVISION

Epilux 45 ZNPH Primer

Two Pack Universal Primer

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Product Description

An excellent corrosion resistant primer for application on Aluminium, Galvanized Iron, Cast Iron, Stainless Steel and Abrasive blasted Mild Steel substrates. Ideal for use in earth moving equipments, bulk handling components, transformers etc. Also applicable for FRP laminates.

Usage Areas

A specially designed Epoxy Zinc Phosphate Primer to provide, superior protection when applied over properly prepared substrates. The product with suitable top coats is an ideal coating system for aggressive environment.

Product Data

Composition	Modified Polyamide Catalyst cured Epoxy with Zinc Phosphate Pigment
Volume Solids	45 ± 2%
VOC	453 gm/ltr
Mixing Ratio	Base : Catalyst :: 4 : 1 by volume
Application Method	Airless Spray; Air-assisted; Brush
Recommended DFT	40 - 60 µ per coat
Recommended WFT	89 - 133 µ per coat
Theoretical Spreading Rate	7.5 to 11.3 m^2/ltr/coat
Colour	Grey
Finish	Matt

Practical Coverage : Dependent on-site condition and transfer losses due to substrate design, profile, wind, heights, application method, painter's skill etc.

Pot Life

10°C	15°C	25°C	40°C
12 hrs	10 hrs	7 hrs	5 hrs

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Typical Coating Systems

Systems compatibility can be provided on request to the Technical Service Team

Coats	Generic Systems	Compatible Products
Primer	Epoxy Zinc Phosphate	Epilux 45 ZNPH Primer
Mid Coat	Epoxy MIO	Epilux 4 HB MIO
Top Coat	Polyurethane	Luxathane HB PU Top Coat

Pack size

	UOM	Part A	Part B	Total
Volume	Lt/Kg	16 ltr	4 ltr	20 ltr

Storage

The paints must be in its sealed original containers and be kept under cover in a dry place with ambient conditions inside closed room until use. The curing agent is sensitive to moisture and hence relative humidity within the room should be maintained preferably at ≤55%. Stacking should not be more than 3 drums/ cartons one above other. DO NOT expose to direct rain/ sunlight. Any deviation to the defined storage condition shall have a negative effect on the shelf life.

Shelf life

Up to 12 months as long as the sealed original containers are kept under cover in a dry place under normal temperature conditions until use.

Note :

1. Storage life @23°C will be extended up to 24 months. Storage at elevated temperatures may reduce shelf life; and hence never exceed maximum room temperature of 40°C. Storage life, thereafter, subject to re-inspection; consult tech-service.
2. It may be noted that higher volume solid material will tend to soft settling on long term storage, and it can made to a normal homogeneous consistency by use of a slow speed 200-400 rpm power stirrer particularly in the PART A (BASE) container; and this soft settling is not considered as a failure of keeping properties.

Flash Point

Part A	Part B	Mixed Paint
25°C	25°C	25°C

Health & Safety

Please refer to the separate Safety Data Sheet available with detailed information.

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APPLICATION GUIDELINE

Substrate		Mild Steel, Stainless Steel, GI, Aluminium, FRP Laminates
Surface preparation		**MIld Steel :** Remove grease, oil and other contaminants preferably by using Solvent Cleaning as per SSPC SP1. Manual/Power Tool cleaning may be adopted for Rust Grade E & F with standard to refer SSPC SP2 / SP3. For Rust grades A, B, C, D, abrasive Blast clean to a minimum SSPC SP10. For severe corrosive conditions and Rust Grades G, H, blast clean to SSPC SP5 with a surface profile not exceeding 55 microns. Special care must be taken on weld areas to remove flux and spatter; welds should be ground back to avoid pockets. The cleaned surface should be clean and dry and coated before it gets contaminated. **GI, Aluminium :** Remove oil, grease and other contaminants preferably using solvent cleaning to SSPC SP1. Dry Sanding with P220- P300 and repeat with cleaning solvent. May also be etch primed or blasted for better performance. **Stainless Steel :** Abrasive blast with non-metallic abrasives to SSPC SP 10. Can be applied using solvent cleaning to SSPC SP1. Dry Sanding with P220- P300 and repeat with cleaning solvent. **FRP Laminates :** Remove oil, grease and other contaminants preferably using solvent cleaning to SSPC SP1. Dry Sanding with P220- P300 and repeat with cleaning solvent.
Atmospheric Condition	Ventilation	Suitable air engineering systems, which will ensure reduction of air contaminants and thatto further help regulate the temperature and humidity of the working environment.
	Dew Point	Ensure surface temperature to be more than 3°C over the dew point temperature.
	Humidity	Do not apply when relative humidity rises above 85%.
Mixing		Stir the base thoroughly and then mix base to a homogenous mixture and then add recommended part of catalyst to uniform consistency. NOTE : DO NOT ADD THINNER beyond recommendation as it will reduce mixed VS calling for revised WFT calculations as well as challenges on flow properties.
Thinner		Thinner T11 or Thinner 844

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Application

Stir the base thoroughly and then mix Four parts of base and one part of catalyst by volume to uniform consistency.

Brush : Apply without thinning.

Conventional Spray : Normally no thinning is required. However, addition of Thinner upto 25- 30% is recommended for ease of application. Use any standard equipment at an atomising pressure of 4.2-4.9 Kg/cm^2 using a hand gun with 1-1.2 mm orifice.

Airless Spray : Normally no thinning is required. However, addition of Thinner upto 10 to 15% is recommended depending on conditions. Use any standard equipment having pump ratio 30 : 1. **Tip size** 0.38 - 0.48mm. **Tip pressure** 110 - 160 Kg/cm^2.

Work Stoppage

Ensure to use the mixed paint within pot life as there are no methods to increase working pot life. Keep the working tools and tips free of drying and clogging. Always use fresh material and never add-up to previous mixed paints.

Clean Up

Clean all equipment immediately after use with Thinner T11 or Thinner 844. It is good working practices to flush or clean all the spray equipment periodically.All the surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations.

Drying Time

Temperature	Touch Dry	Handle Dry	Hard Dry
10°C	100 mins	8 hrs	24 hrs
23°C	50 mins	5 hrs	10 hrs
30°C	40 mins	4 hrs	8 hrs
40°C	30 mins	3 hrs	6 hrs

Over Coating Intervals

MIN	Within 1 hr (wet & wet) / 3-4 Hours with sanding
MAX	6 months with proper surface emery and free from deposited salts

Curing Time

7 days

NOTE : Drying and Curing times are determined under controlled temperatures and at relative humidity below 85%, for the NDFT of the product.

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Inspection	Refer SSPC PA2 guidelines for measurement of DFT. Do not conduct any destructive test like peel off/ pull off & high voltage Holiday test unless and otherwise mandatory in the specification. Consult Technical Service team for preparation of QAP (Quality Assurance plan).
Repair Methodology	Clean off loose paints, debris, contaminants and ensure spot repair with available tools as practiced in hand/ power tool cleaning using wire brush/buffing, emery/feathering to smoothen the edges of impaired areas. Use appropriate touch up primer followed by recommended coating system, allowing due over coating interval time to area of 2-3 inches in excess of the spot repaired portion.
Product Characteristics	• Epilux 45 ZNPH Primer shows fair resistance to acids and alkalis. • It provides excellent resistance to solvents, salt, and water. • It also offers good resistance to mild fumes and outdoor exposure.
Disclaimer	The information contained within this Data Sheet is based on information believed to be reliable at the time of its preparation. The Company will not be liable for loss or damage howsoever caused including liability for negligence, which may be suffered by the user of the data contained herein. It is the users' responsibility to conduct all necessary tests to confirm the suitability of any product or system for their intended use. No guarantee of results is implied since conditions of use are beyond our control.

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