BERGER PROTECTON
PROTECTIVE COATINGS DIVISION

Epilux 485 High Build MIO Coating

Two Pack Epoxy Intermediate

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Product Description

A high build Micaceous Iron Oxide epoxy intermediate, designed for application on structural steel. For its excellent wear resistance and impermeability to penetration to water, Recommended for use in infrastructure projects and in refinery installations as well as in coastal industrial applications.

Usage Areas

A low VOC, high build intermediate coating to give excellent barrier property extending the durability of the performance of coating system. Recommended in high saline environments, chemical environments for use on external exposure of tanks, structural steel, equipment and pipelines.

Product Data

Composition	Epoxy resin cured with polyamide and enriched with lamellar MIO to 80% (by wt.) of pigment.
Volume Solids	80±2%
VOC	172 gms/ltr
Mixing Ratio	Base : Catalyst :: 3:1 (V/V)
Application Method	Airspray or Airless Spray
Recommended DFT	175-200 µ per coat
Recommended WFT	219-250 µ per coat
Theoretical Spreading Rate	4.0-4.6 m^2/ltr /coat
Colour	Red Brown/ Grey
Gloss	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
10 hrs	8 hrs	5 hrs	3 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	Zinc Rich Primer	EpiluxHB ZR Primer, Epilux ZNPH HBX Primer
Mid Coat	Epoxy based Intermediate (MIO, TiO_2)	Epilux 485 High Build MIO Coating
Top Coat	Epoxy, Polyurethane, Polysiloxane, Flurothane	Luxathane Polyurethane Finish, Epilux 4 HB Epoxy Coating, Bergerthane 41 SG PU Finish

Conforms to

Performance requirements of SSPC Paint 20 Type II and ISO 12944.

Pack size

	UOM	Part A	Part B	Total
Volume	Lt/Kg	15 ltr	5 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
26°C	26°C	26°C

Health & Safety

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

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APPLICATION GUIDELINE

Substrate		Carbon Steel & Mild Steel, Stainless Steel, Galvanised steel.
Surface preparation		**Carbon Steel & Mild Steel :** Round off all rough welds, sharp edges and remove weld spatter. Rinse surface thoroughly with clean water to remove acids or alkali contaminants as well as to remove grease, oil and other contaminants in accordance with SSPC SP1. Make full use of mechanical tools along with manual chipping and wire brushing to remove loose rust to SSPC SP2 or SP3 for Rust Grade C or D in new steel or in E for coated steel; else for Rust Grade A, B, G, H abrasive blasting is required as per SSPC SP 10 for application of the primer. **Stainless Steel and Galvanized Surfaces :** Remove grease, oil and other contaminants in accordance with SSPC SP1 and roughen the surface using manual and power tool as per SSPC SP2/ SP3 Thoroughly dust down all surfaces. The surface should be clean and dry before application of primer coat and the subsequent coats. Excessive burnishing of steel has to be avoided while working with power tools.
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 liquid and then add recommended part of catalyst to uniform consistency. Allow the mixture to mature for 15 minutes and stir again before and during application. NOTE : Stir the base thoroughly and then mix base to a homogenous liquid and then add recommended part of catalyst to uniform consistency. Allow the mixture to mature for 15 minutes and stir again before and during application.
Thinner		Thinner 844

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Application

Apply without thinning. However upto 5% may be added if absolutely essential depending on conditions. Use any standard equipment having pump ratio 40:1.

Tip Size : 0.48 - 0.53 mm.

Tip Pressure : 140 - 165 Kg/cm^2.

Touch up and stripe coats can be applied by brush application.

*Do not apply on hot/ cold surfaces. Always apply within the window of 10-50°C.

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 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 appropriateregional regulations.

Drying Time

Temperature	Touch dry	Handle dry	Hard dry
10°C	3 hrs	14 hrs	24 hrs
23°C	2 hrs	10 hrs	10 hrs
30°C	1.5 hrs	7 hrs	9 hrs
40°C	1 hr	5 hrs	7 hrs

Over Coating Intervals

	@23°C	@30°C
MIN	10 hrs	9 hrs
MAX	7 days	7 days

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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.
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 485 High Build MIO Coating is primarily designed for use as a high build barrier coat to impart barrier protection to a coatingsystem. It is recommended that it should be overcoated with a durable finish • Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray,the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray patternto attain maximum film build. Lower or high temperatures may require specific application techniques to achievemaximum film build. • The product is capable of taking long over coating intervals though it is ideally top coated within a week. • Excessive film thickness may lead to splitting of the film when overcoated with high build systems.
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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