

BMA SOLVENT FREE EPOXY

Code: 1BM-ESF

Code of the hardener: BMA-HPE900

Color: Catalogue colors

PROPERTIES

A two component Solvent Free Epoxy coating used for substrates subjected to high temperatures and destructive chemical or mechanical effects. It is an antibacterial finishing topcoat with good impact and abrasion resistance. It could be applied on steel or concrete surfaces. The product complies with the compositional requirements of the international standard MPI GPS-2.

RECOMMENDED USES

BMA Solvent Free Epoxy can be used for:

- ✓ Chemical and industrial plants
- ✓ Food and pharmaceuticals industries
- ✓ Warehouses, laboratories and hospitals

PERFORMANCE BENEFITS

- ✓ Excellent chemical, abrasion and impact resistant
- ✓ Solvent free, odourless
- ✓ Antibacterial coating
- ✓ Withstanding heavy weights
- ✓ Easy cleanability

CHARACTERISTIC PHYSICO-CHEMICAL DATA

Tests	Norms	Glossy
Total Solids, by weight	ASTM D1259	100%
Consistency, at 25°C	ASTM D562	40 ± 2 Poises
Specific Gravity (g/cm ³)	ASTM D1475	1.4
Total Volatile Organic Compound (VOC)	ASTM D3960	< 20 g/L
Spreading Rate at 300µm DFT ⁽¹⁾	-	3.3 m ² /L
Hardener Code	-	BMA-HPE900
Hardener Percentage	-	50%
Induction Time	-	10 min
Pot Life	-	90 min

¹⁾ DFT: Dry Film Thickness

APPLICATIONS GUIDE

Surface Preparation

Before applying BMA Solvent Free Epoxy, all necessary pretreatment must be done. Surface should be clean, dry and free of all contaminants (oils, agents, dust, dirt, etc...) in order to avoid the risk of surface failing.

Metal surfaces:

For new steel, clean the surface from any oil or grease residues using 1 L of EKSEN KIMYA DL50 dissolved in 10 L of water. Sand the substrate to Sa 2 ½ until smoothing then remove all sanding dust and let it dry before any primer application.

For painted steel, remove loose and peeling paint using mechanical methods such as sanding and sandblasting of the entire surface until smoothing so the new coating can adhere properly. When the old paint is compatible with the new one, only light sanding is required. Then, remove persistent dirt and sanding residues with a detergent solution.

For non-ferrous metal, use BMA Wash Primer BMA-WPU mixed with 1.5% of BMA Hardener BMA-HPU700 in order to etch the substrate, remove corrosion residues and

promote adhesion to the subsequently applied coatings. In case of unweathered surface or when weathering is not possible, apply a sweep or brush blast cleaning using a non-metallic abrasive in order to lightly roughen the surface. Let the surface dry before coating application.

Concrete surfaces:

Concrete substrate must be well prepared in order to avoid any coating defects.

For new surface, ensure that concrete is completely cured at least 30 days.

For both fresh and old concrete, decontamination is required to remove any dust, oil, grease, laitance, fatty acids or any additional contaminants. Acid etching is recommended using EKSEN KIMYA Hydrochloric Acid Solution. Decontamination could be also done using detergent scrubbing, low pressure water cleaning, or steam.

After cleaning, fill and repair any surface irregularities (cracks, holes and pores) with the cementitious mixture.

Cementitious mixture preparation: first, prepare a SBR Solution by mixing BMA SBR with water (1:5 by volume). Then, add the SBR Solution to the cement and sand until reaching the desired cementitious mixture.

Allow concrete substrate to dry then check the moisture and the pH of the substrate. Ensure that the pH is between 6 and 9 since alkalinity can affect and destroy paint adhesion. For the moisture content, make sure that it does not exceed 4% (by weight). Otherwise, the concrete surface is not a good candidate for painting.

Priming

Metal and concrete surfaces should be primed with BMA Primer Epoxy BMA-PRE cross-linked with 25% of its hardener BMA-HPE800. Let it dry sufficiently before coating application.

Mixing

Mix thoroughly 50% by volume of the hardener BMA-HPE900 with BMA Solvent Free Epoxy. Leave the mixture for 10 minutes to allow a complete chemical reaction between the components. Apply the mixture within its pot lifetime (90 minutes) at ambient temperature.

Application

BMA Solvent free Epoxy should be applied in a ventilated area where the humidity does not exceed 75% and where the temperature is above 10°C.

The application must be done on a clean and dry surface using a brush, roller or airless spraying system.

Overcoating could be done after 24 hours at ambient temperature.

Drying Time

Surface (Touch) dry: 2 hours

Dry to over coat: 24 hours

Full cure time: 1 week

AVAILABLE PACKAGING

1 US Gallon; 5 US Gallons

SHELF LIFE

BMA Solvent Free Epoxy should be stored in undamaged and unopened containers where the temperature varies between 5°C and 35°C. The product must be kept away from direct exposure to sunlight or any heat or flame source.

Under these conditions, the shelf life of BMA Solvent Free Epoxy will be 2 years and the shelf life of the hardener is 1 year.

After this period, the products quality is subjected to re-inspection. Proper handling is essential to maintain good quality.

HEALTH & SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for complete information on Hazards Identification, First-Aid and Fire-Fighting Measures, Accidental Release Measures, Handling and Storage, Exposure Control and Personal Protection, Stability and Reactivity, Toxicological Information, and Transport Information.

QUALITY ASSURANCE

BMA Commercial & Industrial s.a.l is a holder of the ISO 9001:2015 and ISO 45001:2018 certificates, which guarantees that all operations are conducted in compliance with International Standards.

TDS.11 - Edition #: 2

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