BMA FOOD GRADE EPOXY

Code of the epoxy resin: BMA-EFG
Code of the hardener: BMA-HFG

Colors: White and tinted

PROPERTIES

A two component water based system with good hardness, high gloss and outstanding chemical resistance. It can be applied on metal, concrete or wooden surfaces in any food processing or packaging plants.

RECOMMENDED USES

BMA Food Grade Epoxy can be used for:

- ✓ Food processing and packaging plants
- ✓ Ship kitchen
- ✓ Sanitary surfacing
- ✓ Structure exposed to chemical and industrial environment

PERFORMANCE BENEFITS

- ✓ Excellent hardness
- ✓ Excellent durability
- ✓ Excellent flexibility
- ✓ Salt water resistance, fungi, high abrasion and chemical resistance, especially to food acids
- ✓ Good impermeability to liquid, preventing bacteria growth in porous areas
- ✓ Easy cleanability
- ✓ Excellent adhesion to many types of substrates

CHARACTERISTIC PHYSICO-CHEMICAL DATA

Data corresponding of the Epoxy Resin BMA-EFG cross-linked with its Hardener HFG (White).

Tests	Norms	Results

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Total solids, by weight	ASTM D2369	61.64%
Specific Gravity (g/cm^3)	ASTM D1475	1.268
Spreading Rate at 100µm DFT (1)	-	5.3 m^2/L
Mixing Ratio Hardener (BMA-HFG) to Epoxy Resin (BMA-EFG) by volume	-	1:0.48
Impact Resistance	ASTM D2794	> 30 Kg.cm

APPLICATIONS GUIDE

Surface Preparation

Before applying BMA Food Grade 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.

Treatment of 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 2½ 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 (galvanized steel, aluminum, stainless steel, iron, etc…), use BMA Wash Primer BMA-WPU in order to etch the substrate, remove any 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.

Treatment of 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.

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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 surfaces:
Metal surfaces should be primed to ensure corrosion protection, preferably with BMA Zinc Rich Epoxy Primer.
Concrete surfaces:
No primer is necessary after surface preparation, but the first coat should be diluted with water up to 15% when to be applied to porous or absorbent surfaces.

Mixing

The mixing ratio of the hardener BMA-HFG to the Epoxy Resin BMA-EFG is 1:0.48 by volume.

Thinning

If thinning is necessary, a maximum 5% (for brush or roller application) and 10% (for spraying system) of water could be added in order to obtain the required viscosity of the mixture.

Application

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BMA Food Grade Epoxy should not be applied when the relative humidity exceeds 70% or during raining, mist or fog. The required temperature for optimum performance is between 10ºC and 40ºC.
BMA Food Grade Epoxy must be applied on a clean and dry surface after sufficient stirring and mixing and within its pot lifetime (2 hours) by using roller, brush or spraying system.
Two coats of BMA Food Grade Epoxy are usually required on steel, wooden and concrete surfaces.

Drying Time

Surface (Touch) dry: 12 hours
Dry to over coat: 18 hours
Full cure time: 1 week

AVAILABLE PACKAGING

1 US Gallon = 3.786 L; 5 US Gallons Pail = 18.9 L

SHELF LIFE

BMA Epoxy Food Grade should be stored indoors in the original, unopened and undamaged container, in a dry place at a temperature not exceeding 30°C.
Exposure to direct sunlight should be avoided.
Under the above mentioned storage conditions the shelf life of BMA Epoxy Resin BMA-EFG will be 2 years and the shelf life of BMA Epoxy hardeners BMA-HFG will be 9 months.
After this period, the paint 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.

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