ANTI BACTERIAL EPOXY

Code: BMA-EFC060
Code of its hardener: BMA-HFC000

Color: White

PROPERTIES

A two component Anti-bacterial epoxy with a low odor specially designed to be used on surfaces in contact with food, potable water and juices. BMA Anti-Bacterial Epoxy has an outstanding mechanical and chemical resistances. It is a solvent free epoxy and conforms to the MPI Environmental Standards.

RECOMMENDED USES

BMA Anti-Bacterial Epoxy could be used for:

- ✓ Metallic tanks
- ✓ Concrete structures in water and agricultural plants
- ✓ Heavy duty walls
- ✓ Anti-bacterial effect

PERFORMANCE BENEFITS

- ✓ Low odor
- ✓ Smooth gloss finish
- ✓ Good hardness and mechanical strength
- ✓ Barrier against chemical interactions (acids, oils, salts, alkalis and solvents)
- ✓ Resistance to abrasion and shrinkage
- ✓ Fast drying ability

CHARACTERISTIC PHYSICO-CHEMICAL DATA

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Tests	Norms	Results
Total solids, by weight	ASTM D2369	99.63%
Specific Gravity (g/cm^3)	ASTM D1475	1.29
Mixing Ratio Hardener (BMA-HFC) to Epoxy Resin (BMA-EFC) by volume	-	1:1.61
Spreading Rate at 100µm DFT (1)	-	5.3 m^2/L
Total Volatile Organic Compound (VOC)	ASTM D3960	4.84 g/L
Pot Life	-	2 hours

1) DFT: Dry Film Thickness

APPLICATIONS GUIDE

Surface Preparation

Before applying BMA Anti-bacterial 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.

Steel surfaces:

For new steel, clean the surface from any oil or grease residues using a solution (1:10) of Eksen Kimya (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.

Wooden surfaces:

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For previously painted wooden surface, remove paint residues using a scraper in order to avoid the flaking of the new coating in case it is not compatible with the old one. Sand and smooth the surface then clean it well and remove the sanding dust. Let the surface dry before any primer or sealer application.

For new wood, sand the surface and all the edges lightly until smoothing. Apply an insulator (PU Milesi) for oily wooden substrate. Then, use NC Putty BMA-PUN to close off, patch and fill all surface imperfections (cracks, holes, pores, etc…). Clean the substrate and let it dry then make sure that the moisture content does not exceed 12%. Sand until smoothing using a sanding paper with a 300 grit size. Clean it well before any 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.
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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. If needed, an ammonia solution could be used for a well cleaning.

Priming

Steel surfaces: Prime the substrate after total preparation using BMA Zinc Rich Epoxy Primer in order to protect the surface from corrosion before the final application of BMA-EFC060.
Concrete surfaces: Use a layer of BMA Water Based Undercoat BMA-UNW as a priming coat.

Mixing

Mix thoroughly 38.28% by volume of the hardener BMA-HFC000 with Anti-Bacterial Epoxy. Leave the mixture for 10 minutes to allow a complete chemical reaction between the components. Apply the mixture within its pot lifetime (2 hours) at ambient temperature.

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Application

BMA Anti-Bacterial Epoxy must be applied in a well-ventilated area where the humidity does not exceed 65% and the temperature of 23°C.

On a vertical surface, the application should be done using a roller and it gives a 150 to 200 µm. For a horizontal surface, a spatula could be used to obtain any required thickness, but, a spiked roller must be used to eliminate the formation of bubbles, after 10 minutes of application.
The second layer of BMA-EFC must be applied within 6 hours at 23°C.

Drying Time

Surface (Touch) Dry: 3 hours
Dry to over coat: 6 hours
Full cure time: 7 days

AVAILABLE PACKAGING

For BMA-EFC060: 1 US Gallon = 3.786 L; 5 US Gallons Pail = 18.9 L
For BMA-HFC000: 1L can; 1 US Gallon = 3.786 L; 5 US Gallons Pail = 18.9 L

SHELF LIFE

BMA Anti-Bacterial Epoxy should be stored in undamaged and unopened containers in a well-ventilated area where the humidity does not exceed 65% and the temperature varies between 5°C and 30°C. The storage must be done far away from direct exposure to sunlight or any heating or freezing source.
Under these conditions, the shelf life of BMA-EFC060 will be 1 year and of its hardener it will be 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.

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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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IMPORTANT: The statements, technical information and recommendations contained herein are believed to be accurate. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, BMA Commercial & Industrial s.a.l expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

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