

## HIGH BUILD EPOXY HS

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*Code: BMA-HBH199*

*Code of its hardener: BMA-HPE816*

*Color: Upon request*

### PROPERTIES

A two-component solvent based High Build Epoxy HS, used as an intermediate or a finish coating. It has an excellent resistance to corrosive conditions and mechanical effects. It is designed for application on concrete floors, steel surfaces and any metallic substrate to be submersed in water.

### RECOMMENDED USES

BMA High Build Epoxy HS can be used for:

- ✓ Concrete floors
- ✓ Chemical, petroleum and power plants
- ✓ Marine installations, aquariums and swimming pools
- ✓ Warehouses, hospitals and hotels

### PERFORMANCE BENEFITS

- ✓ UV Resistant
- ✓ Excellent corrosion protection
- ✓ Withstanding temperature variations from -40°C to 150°C
- ✓ Rich in zinc derivatives
- ✓ Good chemical and abrasion resistance
- ✓ High durability
- ✓ Easy cleanability

### CHARACTERISTIC PHYSICO-CHEMICAL DATA

*Data corresponding to BMA High Build Epoxy HS cross-linked with its Hardener **BMA-HPE816**.*

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Tests	Norms	Results
Total Solids, by volume	ISO 3233	80%
Consistency, at 25°C (without hardener)	ASTM D562	20 ± 2 Poises
Specific Gravity (g/cm <sup>3</sup> )	ASTM D1475	1.5
Total Volatile Organic Compound (VOC)	ASTM D3960	357 g/L
Spreading Rate at 80µm DFT <sup>(1)</sup>	-	10 m <sup>2</sup> /L
Recommended DFT <sup>(1)</sup> (µm)	-	75-150

<sup>1)</sup> DFT: Dry Film Thickness

<sup>2)</sup> WFT: Wet Film Thickness

## APPLICATIONS GUIDE

### Surface Preparation

Before applying BMA High Build Epoxy HS, 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 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, etc...), use a thin layer of BMA Wash Primer BMA-WPU 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 surfaces:**

Steel surface should be primed to ensure corrosion protection, preferably with BMA Zinc Rich Epoxy Primer or BMA Zinc Phosphate Epoxy Primer or BMA Primopoxy for metal BMA-SPE.

### **Concrete surfaces:**

Concrete surface should be primed with BMA Primopoxy for Concrete BMA-CPE.

## Mixing

Mix thoroughly 25% by volume of the hardener BMA-HPE816 with BMA High Build Epoxy HS. Leave the mixture for 10 minutes to allow a complete chemical reaction between the components. Apply the mixture within its pot lifetime (5 hours) at ambient temperature.

## Thinning

If thinning is necessary, a maximum 15% (for brush or roller application) and 5% (for airless spraying system) of BMA Thinner Epoxy BMA-THI130 could be added in order to obtain the required viscosity of the mixture.

## Application

BMA High Build Epoxy HS should be applied in a ventilated area where the humidity does not exceed 75% and the temperature varies between 5°C and 35°C.

The application must be done on a clean and dry surface using a brush, roller or airless spraying system within 3 hours.

When BMA High Build Epoxy HS is applied as an intermediate coating, overcoating could be done after 10 hours using one layer of:

- BMA Enamopoxy BMA-CEE cross-linked with 25% of its hardener BMA-HPE800, for concrete surfaces.
- BMA Enamopoxy BMA-SEE cross-linked with 25% of its hardener BMA-HPE800, for all metallic surfaces.
- BMA PU Acrylic BMA-PAK cross-linked with 25% of its hardener HPU600/650, for all exterior surfaces.

### Drying Time

Surface (Touch) dry: 3 hours

Dry to over coat: 10 to 12 hours

Full cure time: 1 week

### AVAILABLE PACKAGING

1 US Gallon Kit = 3.786 L + 0.95 L; 5 US Gallons Pail Kit = 18.9 L + 4.73 L

### SHELF LIFE

BMA High Build Epoxy HS 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 High Build Epoxy HS will be 2 years and the shelf life of its hardener will be 1 year.

After these periods, 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.

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