



**BMA Commercial & Industrial s.a.r.l.**

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**1- ITEM IDENTITY :**

- NAME : ENAMOPOXY FOR METAL + EPOXY HARDENER
- CODE : BMA-SEE060→199 + BMA-HPE800
- DESCRIPTION : 2 components, solvent based, air drying, non porous , relatively high solid epoxy coating, based on a modified polyamid epoxy resin , and especially formulated for heavy duty services .

**2- ITEM USE FIELDS :**

- Industrial Use:  
BMA enamopoxy for metal is an indoor and outdoor coating for well prepared and primed steel offering a durable elegant finish.
- Marine Use:  
It's also formulated to be a protective coating for prepared steel, in order to fight corrosion and oxidation in aggressive environments (marine area, very polluted area,...) .

**3- ITEM GENERAL CHARACTERISTICS :**

- Great resistance to abrasion , impact and high pressures .
- Durable elegant finish , up to 2 – 4 years minimum , according to the environment conditions (long immersion into water and salted water , very high pressure application ,...).
- Remarkable coverage and chemical resistance .
- Good rustproofing properties .
- Excellent heat , salt , acid , corrosion , scratch and scuff resistance .
- Great prevention against surface strips and leaks .
- Very high non-slipping properties if it's mixed with sand or smooth gravel .
- Excellent resistance to floor constant beeting, high traffic,... When totally cured .
- Great heavy equipment and vehicles weight withstanding .
- Compatible with various aged coatings .

- Applicable on steel, blasted steel, aluminum, fiberglass, ...
- Generation , during the application , of some relatively medium toxic vapors , evaporated by some solvents used during the production process .
- Heat generation during the mixture of the epoxy resin with its catalyst .
- Easy to be cleaned – up .

#### 4- ITEM STANDARDS @ 25°C :

<i>Property</i>	<i>Standard</i>	<i>Result</i>
Specific gravity	ASTM D1475	1.40 ± 0.05 g/cm <sup>3</sup>
Viscosity	ASTM D562	85 KU ≈ 10 Poises
Solid content	ASTM D1259	72 ± 5 % by volume
V.O.C. content	ASTM D3960	250 g/L
Catalyst %		25 %
Pot life		4 hours
Induction time		30 min.
Dry to touch		4 hours
Dry to overcoat	ASTM 1640	8 hours
Full cure		7 days
Theoretical spreading rate		10 - 14 m <sup>2</sup> /L upon the layers thickness
Recommended wet film		70 - 100 μm/layer
Recommended dry film		50 - 72 μm/layer
Best diluent		Thinner epoxy BMA or thinner 050 BMA
Dilution %		12 - 17 % by brush & roller / 15 - 20 % by air-spraying 0 - 2 % maximum by airless spraying
Flash point	ASTM D93, (PMCC)	28 °C ( epoxy paint) & 25 °C (catalyst)
Miscibility with water		Not miscible
Color		White , black , grey, other colors on request
Gloss level @60°	ASTM D523	70 – 95 %
Shelf life		2 years (epoxy paint) & 1 year (catalyst) in well closed containers

#### 5- APPLICATION :

##### ➤ Substrate preparation

BMA enamopoxy for metal should be applied on a well cleaned and primed surface, which should be previously treated with a suitable degreasing solution , to remove any oil or grease spot that could interfere with proper adhesion.

##### ➤ Coating preparation

- Stir the epoxy paint and the epoxy hardener in their cans separately with a wooden stirrer or a mechanical mixer.
- In a deep can , mix the exact needed quantity of epoxy paint , that could be used within the pot life limit , with 25% of hardener epoxy BMA-HPE800.
- Wait about 30 minutes for sweating time (induction), then thin with the suitable quantity of BMA thinner epoxy or BMA thinner 050.

##### ➤ Application on steel surfaces

##### a- For steel located in a fairly polluted and contaminated area :

- To obtain great results, well clean the steel and pre-treat it with EKSEN KIMYA suitable cleaning solution till the steel reach a clean level SA2.5.
- After well cleaning the surface, you can apply the epoxy system :
  - prime the substrate with one coat of Epicopoxy Rust Proofing primer BMA-ERP... mixed with 25% oh hardener BMA-HPE950.
  - Let dry for about 6 – 8 hours.
  - Apply one cross-coat of primopoxy for metal BMA-SPE... mixed with 25% of hardener BMA-HPE800.
  - Let dry for 6- 8 hours.
  - Finish with one or two cross coats of enamopoxy for metal BMA-SEE... mixed with 25% of hardener epoxy BMA-HPE800 for an elegant finish .
  - Let cure for minimum 3 days.
- to apply BMA enamopoxy for metal on a previously coated steel, clean it well , remove any previous paint or stain , then clean it well before the epoxy application to ensure proper adhesion .

**b- for steel located in an idustrial zone considered as very contaminated and polluted:**

- To obtain great results, well clean the steel and pre-treat it with EKSEN KIMYA suitable cleaning solution till the steel reach a clean level SA2.5.
- After well cleaning the surface, you can apply the epoxy system :
  - Prime the substrate with one coat of zincopoxy primer grey BMA-ZRE071 mixed with 25% of its hardener BMA-HPE830.
  - Let it dry for 6-7 hours.
  - Apply one coat of high build intermediopoxy BMA-HBI... mixed with 25% of its hardener BMA-HPE820.
  - Let dry for 6-7 hours.
  - Finish with one coat of enamopoxy BMA-SEE... mixed with 25 % of hardener epoxy BMA-HPE800.
  - Let cure for at least 5 days .
- To apply BMA enamopoxy for steel on a previously coated steel, clean it well, remove any previous paint or stain, then clean it well before the epoxy application to ensure proper adhesion .

➤ Application on non ferrous substrates(galvanized steel, aluminum, stainless steel, tin plates, zinc substrates, magnesium substrates, lead substrates,.... :

- To obtain great results , well clean the non ferrous substrate and pre-treat it with EKSEN KIMYA suitable cleaning solution.
- After well cleaning the surface, you can apply the epoxy system :
  - Etch the substrate with a very thin layer (8 – 10 µm) of BMA wash primer BMA-WPU... mixed with 12.5% of its hardener BMA-HPU700, this layer will form a tie coat between the substrate and the epoxy system.
  - prime the treated substrate with one coat of Epicopoxy Rust Proofing primer BMA-ERP... mixed with 25% oh hardener BMA-HPE950.
  - Let dry for about 6 – 8 hours.
  - Apply one cross-coat of primopoxy for metal BMA-SPE... mixed with 25% of hardener BMA-HPE800.
  - Let dry for 6- 8 hours.

- Finish with one or two cross coats of enamopoxy for metal BMA-SEE... mixed with 25% of hardener epoxy BMA-HPE800 for an elegant finish .
- Let cure for minimum 3 days.
- to apply BMA enamopoxy for metal on a previously coated surface, clean it well, remove any previous paint or stain, then clean it well before the epoxy application to ensure proper adhesion .

➤ Application tips

- BMA epoxy solvent based could be applied by a brush , a roller or an airless spraying gun (which is not very recommended for safety issues) ; although while spraying epoxy , it's recommended to apply the first coat by a brush , this fills the grain better , because epoxy doesn't usually wet out well which could lead , during a non appropriate application to holes and fish eyes into the cured surface .
- It's recommended to mix just the needed quantity of BMA paint epoxy with 25 % of its hardener just before the application and to close hermetically the cans of the remaining 2 components to avoid their solidification .

➤ Cleaning

Clean hands and tools directly with BMA thinner epoxy or 050; any residue left in the spraying gun could irreversibly block its nozzle .

6- **SUMMARY:**

<i>Clean Steel Substrate in a Urban Zone</i>		
1 <sup>st</sup> layer	Primopoxy for metal SPE...+HPE800	35µm
2 <sup>nd</sup> layer	Enamopoxy for metal SEE...+HPE800	25µm
3 <sup>rd</sup> layer	Enamopoxy for metal SEE...+HPE800	25µm

<i>Fairly Rusty Steel Substrate a Urban Zone</i>		
1 <sup>st</sup> layer	Epicopoxy rust proofing primer ERP...+HPE950	35µm
2 <sup>nd</sup> layer	Enamopoxy for metal SEE...+HPE800	25µm
3 <sup>rd</sup> layer	Enamopoxy for metal SEE...+HPE800	25µm

<i>Steel Substrate in an Indutrial &amp; Polluted Zone</i>		
1 <sup>st</sup> layer	Zincopoxy primer grey BRE071+HPE830	40µm
2 <sup>nd</sup> layer	High built intermediopoxy HBI...+HPE820	80µm
3 <sup>rd</sup> layer	Enamopoxy for metal SEE...+HPE800	25µm
4 <sup>th</sup> layer	Enamopoxy for metal SEE...+HPE800	25µm

<i>Non Ferrous Substrate</i>		
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1 <sup>st</sup> layer	Wash primer WPU...+HPU700	5-8µm
2 <sup>nd</sup> layer	Primopoxy for metal SPE...+HPE800	25µm
3 <sup>rd</sup> layer	Enamopoxy for metal SEE...+HPE800	25µm
4 <sup>th</sup> layer	Enamopoxy for metal SEE...+HPE800	25µm

#### 7- LIMITATIONS :

It's not recommended to use this product in the following cases :

- When the application area is closed and not well ventilated .
- When one of the 2 components is expired .
- When the temperature is below 5°C or above 40°C .
- When the substrate temperature is not at least 3°C above the dew point .
- When the humidity overstep 85 % .
- When rain is forecasted within 72 hours after application on an outdoor substrate .
- When the mixture of the 2 components oversteps the pot life limit .
- When the coating will be applied over a very rusty steel , unless it's well treated and prepared .
- When the coating will be applied over a wet floor .

#### 8- AVAILABLE PACKAGES :

- US gal and 5 US gal for the epoxy coating .
- 1L can and 5L gal for the catalyst .

#### 9- STORAGE :

Store this product in well closed containers , kept in a ventilated area , away from direct sunlight , heat sources , flames , freezing conditions , in a moderate temperature between 5 to 35 °C .

#### 10- HEALTH AND SAFETY :

- Keep out of the reach of children .
- Apply in a well ventilated area away from children , pregnant women and persons with respiratory problems .
- Don't hang the product container while storing .
- Do never touch any paint with bare hands .
- It's recommended to wear face mask and hand gloves while applying , especially in case of repetitive exposures .
- In case of eye contact flush with large amounts of water without rubbing eyes , if the malaise persists , directly contact a physician .
- In case of skin contact , wash the defected area with warm soapy water ; if any allergic reaction appears consult a physician .
- Get rid of the unused remaining quantities and the empty cans according to your country regulations .

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