



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

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1- **ITEM IDENTITY :**

- NAME : PRIMOPOXY FOR METAL + EPOXY HARDENER
- CODE : BMA-SPE060→199 + BMA-HPE800
- DESCRIPTION : 2 components ,solvent based , air drying , non porous , relatively high solid epoxy primer , based on a modified polyamid epoxy resin , and especially formulated for heavy duty services , such water immersion and high mechanical effect .

2- **ITEM USE FIELDS :**

BMA primopoxy for metal is an indoor and outdoor primer coating for well prepared steel . It's also formulated to be a protective coating for prepared steel from corrosion issues .

3- **ITEM GENERAL CHARACTERISTICS :**

- Great resistance to abrasion , impact and high pressures .
- Durable , up to 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 relative 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 .
- 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 .
- Could be overcoated by BMA enamopoxy for metal BMA-SEE... and BMA anti-static epoxy BMA-ASE071 ,...

4- ITEM STANDARDS @ 25°C :

<i>Property</i>	<i>Standard</i>	<i>Result</i>
Specific gravity	ASTM D1475	1.60 ± 0.05 g/cm ³
Viscosity	ASTM D562	90 KU ≈ 11.5 ± 1 Poises
Solid content	ASTM D1259	60 ± 5 % by volume
V.O.C. content	ASTM D3960	350 ± 20 g/L
Catalyst %		25 % by volume
Pot life		4 hours
Induction time		30 min.
Dry to touch		20 min.
Dry to overcoat	ASTM 1640	24 hours
Full cure		3 days
Theoretical spreading rate		12 - 16 m ² /L upon the surface
Recommended wet film		60 ± 5 μm/layer @ 50% dilution 46 ± 3 μm/layer @ 20% dilution
Recommended dry film		26 - 42 μm/layer
Best diluent		Thinner epoxy BMA or thinner 050 BMA
Dilution %		10 - 15 % by brush & roller / 15 - 17 % 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	≤ 5%
Shelf life		2 years (epoxy primer) & 1 year (catalyst) in well closed containers

5- APPLICATION :

➤ Substrate preparation

BMA primopoxy for metal should be applied on a well cleaned 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 primopoxy for metal and the epoxy hardener in their cans separatly with a wooden stirrer or a mechanical mixer .
- In a deep can , mix the exact needed quantity of primopoxy for metal , 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 primer epoxy BMA-SPE... mixed with 25% of hardener BMA-HPE800.
 - Let dry overnight.
 - 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 primopoxy 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 for metal BMA-SEE... mixed with 25 % of hardener epoxy BMA-HPE800.
 - Let cure for at least 5 days .
- To apply BMA-SPE on a previously coated steel, clean it well, remove any previous paint or stain, then clean it well before applying epoxy 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 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 primopoxy for metal 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 st layer	Primopoxy for metal SPE...+HPE800	35µm
2 nd layer	Enamopoxy for metal SEE...+HPE800	25µm
3 rd layer	Enamopoxy for metal SEE...+HPE800	25µm

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

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

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