



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

Industrial valley – Nahr El Mot – Lebanon

TEL : +961 1 885385/ 485 – FAX : +961 1 885685 – P.O. BOX : 55091

E-mails : info@bmapaints.com / customerservice@bmapaints.com

Website : www.bmapaints.com

1- **ITEM IDENTITY :**

- NAME : ZINCOPOXY PRIMER GREY + EPOXY SPECIAL HARDENER
- CODE : BMA-ZRE071 + BMA-HPE830
- DESCRIPTION : 2 components, polyamid cured, zinc rich epoxy primer, having a high zinc dust content to provide high durability & great protection against corrosion in both new construction & maintenance situations, especially in a contaminated zone.

2- **ITEM USE FIELDS :**

BMA zincopoxy is an indoor and outdoor primer coating for well prepared metal such as carbon steel, galvanized steel,

It's especially designated to be used in areas exposed to severe pollutions and high corrosive atmosphere. It's ideal to be used in power, paper & pulp plants, refineries, bridges, general structural steel, buildings, petrochemical facilities,... and any other metal structure located in an industrial zone or a highly contaminated area.

3- **ITEM GENERAL CHARACTERISTICS :**

- Great resistance to abrasion , impact and high pressures .
- Excellent corrosion resistance even in severe environments.
- Durable , up to 7 years minimum , according to the environment conditions (long immersion into water and salted water , very high pressure application ,...) .
- Remarkable coverage and chemical resistance .
- Good waterproofing and great rustproofing properties .
- Excellent heat , salt , acid , corrosion , scratch and scuff resistance .
- Great heavy equipment and vehicles weight withstanding .

- Compatible with various aged coatings .
- Fast dry and easy to be recoated.
- VOC compliant.
- High durability and great flexibility.
- Excellent cathodique protection.
- Ideal for indoor and outdoor use.
- Applicable on steel , blasted steel , aluminum , fiberglass,... with a remarkable adhesion.
- Generation , during the application , of some relatively medium toxic vapors , evaporated by some solvents used during the production process .
- Could be overcoated by BMA enamopoxy for metal BMA-SEE... and BMA anti-static epoxy BMA-ASE071 ,..., but for the best results it should be directly coated by BMA high built intermediopoxy BMA-HBI... then to apply one of the mentioned epoxy finishes.

4- ITEM STANDARDS @ 25°C :

<i>Property</i>	<i>Standard</i>	<i>Result</i>
Specific gravity	ASTM D1475	2.4 ± 0.1 g/cm ³
Viscosity	ASTM D562	19 ± 1 Poises
Solid content	ASTM D1259	50 ± 5 % by volume
V.O.C. content	ASTM D3960	335 ± 5 g/L
Catalyst %		25 % by volume
Pot life		4 hours
Dry to touch		40 min.
Dry to overcoat	ASTM 1640	6 hours
Full cure		5 days
Theoretical spreading rate		10 - 12 m ² /L upon the surface
Recommended wet film		64 - 82 μm/layer
Recommended dry film		35 - 45 μm/layer
Best diluent		Thinner epoxy BMA or thinner 050 BMA
Dilution %		3- 5 % by brush & roller / 0 - 2 % minimum by airless spraying
Flash point	ASTM D93 _(PMCC)	28 °C (epoxy paint) & 25 °C (catalyst)
Miscibility with water		Not miscible
Color		Only grey
Gloss level @60°	ASTM D523	Glossless (< 5 units)
Shelf life		2 years (zincopoxy primer) & 1 year catalyst) in well closed containers

5- APPLICATION :

- Substrate preparation
BMA zincopoxy primer should be applied on a well cleaned metal surface , which should be previously treated with a suitable alkaline detergent or degreasing solution , to remove any oil or grease spot that could interfere with proper adhesion .
- Coating preparation

- Stir the epoxy zinc rich primer and the epoxy special hardener in their cans separately with a wooden stirrer or a mechanical mixer .
- In a deep can , mix the exact needed quantity of zinc epoxy primer BMA-ZRE071 , that could be used within the pot life limit , with 12.5 % of hardener epoxy BMA-HPE830 .
- 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 Epicopoly Rust Proofing (Epicon) primer BMA-ERP... mixed with 25% of hardener BMA-HPE950.
 - Let dry for about 6 – 8 hours.
 - Apply one cross-coat of primopoly 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 enamopoly 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 paint epoxy 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 industrial 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 zinc epoxy 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 intermediopoly BMA-HBI... mixed with 25% of its hardener BMA-HPE820.
 - Let dry for 6-7 hours.
 - Finish with one coat of enamopoly for metal BMA-SEE ... mixed with 25 % of hardener epoxy BMA-HPE800.
 - Let cure for at least 5 days .
- To apply BMA paint epoxy 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 BMA wash primer BMA-WPU... mixed with 25% 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 paint epoxy 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 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 .
- To apply the epoxy on an outdoor substrate it's essential to top coat it with a PU acrylic paint to protect it from UV light.

➤ 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	Epicon 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	Zinc rich epoxy primer grey BRE071+HPE830	40µm
2 nd layer	High built intermediate epoxy 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	Primer epoxy PRE...+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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