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1- **ITEM IDENTITY :**

- NAME : HIGH BUILT INTERMEDIPOXY + EPOXY SPECIAL HARDENER
- CODE : BMA-HBI060→199 + BMA-HPE820
- DESCRIPTION : 2 components, air drying, non porous, high solid, polyamid cured epoxy intermediate paint, rich in zinc phosphate and especially formulated to be used on surfaces designated for an immersion into water or on surfaces supporting a high mechanical effect or chemical contact.

2- **ITEM USE FIELDS :**

BMA intermediopoxy paint is an indoor and outdoor coating for well prepared and primed concrete and metal substrates .

It's especially designated to be used on any primed concrete floor ; Because of its chemical , weather and impact resistance and non-slip properties , and because it withstands the floors constant beating, prevents the surfaces stripes and leaks , maintains a strong mechanical resistance to the cured floor and gives a smooth and elegant finishing , it's formulated for industrial uses , such as factories , warehouses , showrooms , hospitals , schools and hotels floors , as well as for garages , hangars , aquariums , swimming pools, restaurant kitchens , boat-buildings ,...

It's also formulated to be a protective coating for prepared steel from corrosion issues, especially if it's applied over BMA Epicon rust proofing epoxy primer or over BMA zinc rich epoxy primer .

3- **ITEM GENERAL CHARACTERISTICS :**

- General purpose epoxy intermediate paint for metal, concrete and wooden structures exposed to marin conditions and high pressures.
- Great resistance to abrasion , impact and high pressures .
- Good flexibility.

- Acceptable fire retardant property.
- High rich in zinc derivatives.
- Durable paint , up to 4 years minimum , according to the environment conditions (long immersion into water and salted water , very high pressure application ,...); this duration could atteind 10 years if it overcoats BMA zincopoxy primer BMA-ZRP071 .
- Remarkable coverage and chemical resistance .
- Good waterproofing and 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 concrete , steel , blasted steel , aluminum , fiberglass , ...
- Generation , during the application , of some relatively medium toxic vapors , evaporated by some solvents used during the production process .
- Easy to be cleaned – up .
- Suitable for wastewater.

#### 4- ITEM STANDARDS @ 25°C :

<i>Property</i>	<i>Standard</i>	<i>Result</i>
Specific gravity	ASTM D1475	1.32 ± 0.05 g/cm <sup>3</sup>
Viscosity	ASTM D562	15 ± 2 Poises
Solid content	ASTM D1259	65 ± 2 %
V.O.C. content	ASTM D3960	404 g/L
Catalyst %		25 %
Pot life		4 hours
Induction time		30 min.
Dry to touch		6 hours
Dry to overcoat	ASTM 1640	12 hours
Full cure		7 days
Theoretical spreading rate		10 - 14 m <sup>2</sup> /L upon the layers thickness
Recommended wet film		115 - 130 µm/layer
Recommended dry film		75 – 85 µm/layer
Best diluent		Thinner epoxy BMA or thinner 050 BMA
Dilution %		10- 15 % by brush & roller / 0 - 5 % by airless spraying
Flash point	ASTM D93 <sub>(PMCC)</sub>	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	Glossless (< 5 units)
Shelf life		2 years (epoxy intermediate paint)& 1 year (catalyst) in well closed containers

## 5- APPLICATION :

### ➤ Substrate preparation

BMA intermediopoxy paint should be applied on a well cleaned and primed 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 intermediopoxy 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 BMA-HBI... , that could be used within the pot life limit , with 25% of hardener epoxy BMA-HPE820 .
- Wait about 30 minutes for sweating time (induction) , then thin with the suitable quantity of BMA thinner epoxy or BMA thinner 050.

### ➤ Application on concrete surfaces

- Etch the concrete with Muriatic (hydrochloric) acid then rinse it immediately with plenty of water; the surface must seem as a 150–180 grit sandpaper, and it must directly absorb few drops of water , otherwise the etching procedure should be repeated.
- When the surface is dry , rub your finger against it and wait for a white film of dust or powder , if it appears rinse again .
- After full dryness , the epoxy could be applied :
  - begin with one or two cross coats (if the surface needs) of insulopoxy BMA-INS000 mixed with 25% of hardener epoxy BMA-HPE800.
  - allow to dry for at least 6 – 8 hours .
  - follow – up by one cross – coat of primopoxy for concrete BMA-CPE...mixed with 25% of hardener epoxy BMA-HPE800 .
  - allow to dry for 6 – 8 hours .
  - for best results, apply one coat of high build intermediopoxy BMA-HBI...mixed with 25% of its hardener BMA-HPE820 and wait overnight to dry.
  - finish with one cross coat of enamopoxy for concrete BMA-CEE... mixed with 25% of hardener epoxy BMA-HPE800 for an elegant finish .
  - let dry for 2 days for light foot traffic , 5 days for heavy foot traffic and ten days for vehicle traffic .
- to apply BMA-HBI... on a previously coated floor , clean it well , remove any peeling paint or stain , and if it's sealed , grind it to remove the sealer , then scuff it well before the application to ensure proper adhesion .

### ➤ 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 (Epicon) 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.
- For best results, apply one coat of high built intermediopoxy BMA-HBI...mixed with 25% of its hardener BMA-HPE820 and wait overnight to dry.
- Finish with one 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 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 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 1.5% 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 (Epicon) 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 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:

<b><i>Mineral Substrate : Concrete (variant 1)</i></b>		
1 <sup>st</sup> layer	Insulopoxy INS000+HPE800	25µm
2 <sup>nd</sup> layer	Enamopoxy for concrete CEE...+HPE800	75µm
3 <sup>rd</sup> layer	Enamopoxy for concrete CEE ...+HPE800	75µm

<b><i>Mineral Substrate : Concrete (variant 2)</i></b>		
1 <sup>st</sup> layer	Insulopoxy INS000+HPE800	25µm
2 <sup>nd</sup> layer	Primopoxy for concrete CPE...+HPE800	50µm
3 <sup>rd</sup> layer	High built intermediopoxy HBI...+HPE820	35µm
4 <sup>th</sup> layer	Enamopoxy for concrete CEE ...+HPE800	35µm

<b><i>Clean Steel Substrate in a Urban Zone</i></b>		
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

<b><i>Fairly Rusty Steel Substrate a Urban Zone</i></b>		
1 <sup>st</sup> layer	Epicopoxy (Epicon) 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

<b><i>Steel Substrate in an Industrial &amp; Polluted Zone</i></b>		
1 <sup>st</sup> layer	Zincopoxy primer grey ZRP071+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

<b><i>Non Ferrous Substrate</i></b>		
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 .