BMA ENAMEL SYNTHETIC

TECHNICAL DATA SHEET

Product Codes:

Product Name	Product Code
Enamel Synthetic Matt	1BM-PYM
Enamel Synthetic 30% Glossy	1BM-PYT
Enamel Synthetic Demi Matt	1BM-PYD
Enamel Synthetic Glossy	1BM-PYG

Hardener Code (if applicable): Not Applicable

I. Product Description

BMA Enamel Synthetic is a one-component alkyd-based topcoat with quick-drying properties. It is specially designed for use on interior and exterior primed metal, wood, cementitious, and plastered surfaces exposed to various weathering conditions and frequent cleaning. BMA Enamel Synthetic is suitable for applications in industrial areas, as well as on bridges, fences, balconies, kitchens, and public buildings.

II. Product Performance Characteristics

- Suitable for interior and exterior application
- Durable and hard-wearing finish
- Withstanding weather conditions
- Good hardness and good coverage
- Abrasion and chemical resistance
- Relative Quick drying
- Withstanding frequent cleaning without variation in shine, color or gloss level.

III. Areas of Application

BMA Enamel Synthetic can be used for:

- Wood primed surfaces
- Gypsum surfaces
- Concrete and plastered walls
- Steel structures

IV. Technical Specifications

Data for BMA Enamel Synthetic for all gloss levels:

Parameter	Norm/Standard	Result
Total Solids, by weight (%)	ASTM D1259	68-78
Total Solids, by volume (%)	ISO 3233	57-59
Viscosity at 25°C (KU)	ASTM D562	105
Specific Gravity (g/cm^3)	ASTM D1475	1.3-1.5
Total Volatile Organic Compound (VOC) (g/L)	ASTM D3960	350-450
Theoretical Spreading Rate (m^2/L)	-	9.5-19
Recommended WFT [2] (µm)	-	75-150
Recommended DFT [1] (µm)	-	30-60
Appropriate solvent	-	BMA White Spirit
Solvent ratio by volume (%)	-	15

[1] *DFT: Dry Film Thickness*
[2] *WFT: Wet Film Thickness*

V. Application Procedure

Surface Preparation

Before applying BMA Enamel Synthetic, all necessary pretreatment must be done. Surface should be clean, dry and free of all contaminants (oils, 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 SAMA chemical 3 in 1 phosphating additive (1L:35L 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 or 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, sanding residues, and zinc salts with a detergent solution and water.

For non-ferrous metal (galvanized steel, aluminum, stainless steel, etc…), remove corrosion residues and promote adhesion to the subsequently applied coatings, use a thin layer (8-10 µm) of BMA Wash Primer in order to etch the substrate. In case of unetched surface or when etching 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.

To adjust the surface unevenness, BMA putty polyester should be applied.

For corrosion prevention, the cleaned surface should directly be primed.

Wooden Surfaces

For previously painted wooden surface, remove paint residues using a scraper in order to avoid the flaking of the new coating in case it is not compatible with the old one. Sand and smooth the surface then clean it well and remove the sanding dust. Let the surface dry before any primer or sealer application.

For new wood, sand the surface and all the edges lightly until smoothing. Apply BMA insulator for oily wooden substrate. Then, use BMA Bouche-Pores to close off, patch and fill all surface imperfections (cracks, holes, pores, etc...). Clean the substrate and let it dry then make sure that the moisture content does not exceed 10%. Sand until smoothing using a sanding paper with a 300-grit size. Clean it well before any 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. If needed, an ammonia solution could be used for a well cleaning.

Priming

Metal Surfaces

Prime the surface with a coat of BMA Antirust Primer or BMA Marine Primer or BMA Zinc chromate primer.

Concrete Surfaces

After cleaning, seal the surface with BMA Water Based Sealer in order to be ready to receive the BMA Water Based Putty Filler then prime with BMA Undercoat.

Wooden Surfaces

Prime the surface with two to three layers of BMA Underocat.

Thinning

If thinning is required, use 10 to 15% (for brush or roller application) of BMA White Spirit for a maximum protection of the paint gloss level, or 10 to 20% of BMA Thinner Synthetic for an air spraying application.

Application

BMA Enamel Synthetic should be applied on a clean and dry surface in a well-ventilated area where the humidity does not exceed 65% and the surface temperature at least 5°C. The product should not be exposed to mechanical stress before full curing.

After the corresponding primer application and a full drying, two to three coats of BMA Enamel synthetic should be applied using a brush, roller or an air spraying system. It can be followed by BMA Varnish for metal and wooden surfaces and by any type of synthetic paint for walls application.

VI. Drying Conditions

Condition	Time
Surface Touch Dry	4 hours
Dry to over coat	24 hours
Thorough Dry	48 hours

VII. Color Range

According to BMA catalog colors.

VIII. Packaging

Available in:
Kilo, Gallon & Pail kits.

IX. Shelf Life & Storage Conditions

Shelf Life	Storage Temperature & Humidity	Storage Conditions
▪ 2 years from the manufacturing date.	▪ **Temperature:** Between 5ºC and 35ºC ▪ **Humidity:** Should not exceed 85%	Store in undamaged, unopened containers. The product must be kept away from direct sunlight and any sources of heat or flame.

X. Safety, Health, and Environmental Compliance

Aspect	Details
Environmental Impact	Contains volatile organic compounds (VOCs); avoid release into the environment. Dispose of in accordance with local environmental regulations. Prevent contamination of soil and waterways.
Health Hazards	Harmful by inhalation, skin contact, and if swallowed. May cause allergic skin reactions, respiratory irritation, or eye damage. Prolonged exposure may affect the central nervous system.
Safety Precautions	Use only in well-ventilated areas. Wear appropriate personal protective equipment (PPE) including gloves, goggles, and a

	respirator. Avoid direct contact with skin and eyes. Do not eat, drink, or smoke while using the product.
First Aid Measures	**Inhalation:** Move to fresh air; seek medical attention if symptoms persist. **Skin Contact:** Wash immediately with soap and water. Remove contaminated clothing. **Eye Contact:** Rinse cautiously with water for several minutes. Seek medical advice. **Ingestion:** Do not induce vomiting. Rinse mouth and seek immediate medical assistance.

XI. Certifications and Test Reports

BMA Commercial & Industrial s.a.l holds ISO 9001:2015, ISO 45001:2018, and ISO 14001:2015 certifications, ensuring that all operations are conducted in compliance with international standards.

XII. Disclaimer

The statements, technical information, and recommendations contained herein are believed to be accurate. However, as the conditions and methods of use of the product and the information provided are beyond our control, BMA Commercial & Industrial s.a.l expressly disclaims any and all liability for any results obtained or consequences arising from the use of the product or reliance on this information.