BMA POLYURETHANE LACQUER

TECHNICAL DATA SHEET

Product Codes & Hardener Codes:

Product Name	Product Code	Hardener Code
PU Lacquer Matt	1BM-LPU0500	1BM-HPU0100
PU Lacquer 30% Glossy	1BM- LPU0400	1BM-HPU0100
PU Lacquer Demi matt	1BM- LPU0300	1BM-HPU0100
PU Lacquer Glossy	1BM- LPU0200	1BM-HPU0200

I. Product Description

A two-component polyurethane clear topcoat with weathering resistance, designed to cover surfaces with various levels of chemical and mechanical exposure. With its good application properties, 1BM-LPU must be applied over a dry and free of contaminants sealer polyurethane coating in order to protect the surface and provide the required gloss level.

II. Product Performance Characteristics

- Resistance to destructive weathering conditions
- Various gloss levels
- Resistance to water and chemical exposure
- Withstanding impact and scratch effects

III. Areas of Application

BMA PU Lacquer can be used for:

- Bars and kitchens bench tops
- Bathrooms vanities
- Industrial floors
- Wooden furniture

IV. Technical Specifications

Data for BMA PU Lacquer:

Parameter	Norm/Standard	LPU0200	LPU0300	LPU0400	LPU0500
Total Solids, by weight (%)	ASTM D1259	52	45	45	46
Total Solids, by volume (%)	ISO 3233	40	37.89	37.89	38.21
Viscosity at 25°C (Poises)	ASTM D562	3	3	8	8
Specific Gravity (g/cm^3)	ASTM D1475	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1
Total Volatile Organic Compound (VOC) (g/L)	ASTM D3960	450	465	469	469
Theoretical Spreading Rate (m^2/L)	-	8-13.33	7.578-12.63	7.578-12.63	7.642-12.73
Recommended WFT [2] (µm)	-	75-125	75-125	75-125	75-125
Recommended DFT [1] (µm)	-	30-50	30-50	30-50	30-50
Appropriate solvent	-	BMA Thinner PU	BMA Thinner PU	BMA Thinner PU	BMA Thinner PU
Solvent ratio by volume (%)	-	25-35	25-35	25-35	25-35
Gloss Level (%)	ASTM D523	70-95	35-50	25-35	0-5
Induction Time (minutes)	-	5-8	5-8	5-8	5-8
Pot Life at 23 °C (minutes)	-	60	60	60	60

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

V. Application Procedure

Surface Preparation

Before applying BMA PU Lacquer, 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.

Wooden Surfaces

For previously painted wooden surface, remove paint residues using a scraper or Multichimica Remover 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 polyurethane insulator for oily wooden substrate. Then, use NC Putty BMA-PUN 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.

Priming

A DFT of 40 - 60 µm of BMA polyurethane Sealer (SPU102 cross-linked with its hardener PU Hardener BMA-HPU102 should be applied directly after preparing, cleaning and drying the surface. Primer Sealer should be allowed to become tack-free before being sanded.

Mixing

Pour contents of BMA Polyurethane Lacquer into a larger container, add its corresponding BMA PU Hardener and mix them thoroughly. The hardener percentage to the base component is 50% by volume.

Thinning

If thinning is required 25-35 % (for air spraying application) of BMA PU Thinner could be used in order to obtain the required viscosity.

Application

BMA Polyurethane Lacquer should be applied in a well-ventilated area where the humidity does not exceed 85% and the temperature not less than 10°C. The substrate temperature should be at least 3°C and it must be dry and free of any residues.

Since the coating is a clear system, apply Wood Stain 1BM-STS then 2 to 3 layers of BMA Sealer. 1BM-LPU could be applied using a spraying system to the recommended thickness of 40 - 60 µm per layer.

VI. Drying Conditions

Condition	Time
Surface Touch Dry	30 minutes
Dry to over coat	12 hours
Full cure time	1 week

VII. Color Range

Available in clear only.

VIII. Packaging

Available in:
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.