MPU M02N TWO-COMPONENT POLYUREA INTERMEDIATE COAT

DESCRIPTION:

Two components, high performance, solvent-free coating liquid, odorless, with polyol resin as component A and curing agent aromatic isocyanates as component B.

It is specially designed to be as intermediate coat between MPU primer and MPU topcoat system, and to build up a high film thickness with a good mechanical strength that reinforces the effectiveness of the substrate.

Unlike the base coat based on epoxy resin, M02N is playing a more superior performance in compression resistance and bending resistance.

FEATURES:

Adhesion Promotion: Strengthens the bond between primer and topcoat for a durable, cohesive system.

Effective Sealing & Moisture Barrier:
It provides exceptional sealing properties, effectively insulating moisture to minimize bubble and pinhole formation in the polyurea coating.

Strong Chemical Bonding with Polyurea:
It chemically bonds with polyurea, creating a robust adhesion between the concrete substrate and the polyurea layer, ensuring long-term performance and durability.

RECOMMENDED USES:

on various substrates of concrete, metal, ceramic, stones.

NOTE: call our technical department about the application to other substrates or situations.

DESIGN CRITERIA:

M02N is designed for application in one coat. It is not recommended to apply a thick coat more than 0.3mm. Use the scraper to eliminate the bubbles.

APPLICATION METHOD:

Previous preparation of the substrate according to its type. Existing holes or areas with a lack of material must be repaired. General cleaning of the substrate, removing existing dust, dirt, grease or efflorescence. The substrates must be resistant and cohesive. Check the maximum degree of moisture permittivity of the substrate.

Mix and stir the components using a mechanical shaker for approximately 4-5 minutes (medium speed). Apply the thin coats until the desired planimetry is achieved. Consumption between 0.2 and 0.3 g/sqm depending on the roughness of the substrates.

NOTE: For other types of substrates, weather conditions or final use, consult our technical department

MPU COATINGS

TDS. TECHNICAL DATA SHEET

MPUBASE M02N

TECHNICAL DATA:

NO.	ITEM	VALUE
1	The weight of component A	16 kg
2	The weight of component B	4 kg
3	The total weight of A + B	20kg
4	Density of mixed resin	1.45kg/l @23℃
5	Volume ratio of cured components	100%
6	Weight ratio of cured components	100%
7	Shore D	60 (14 days / +23 °C)
8	Tensile Strength	5 N/mm² (14 days / +23 °C)
9	Elongation at break	25% (14 days / +23 °C)
10	Adhesive Tensile Strength	1.5 N/mm² (concrete failure) > 3.0 N/mm² (aluminum, steel)
11	Mixing ratio (in weight)	16:4
12	usage	0.2 -0.3 kg/m²
13	layer thickness	0.15-0.2mm
14	Ambient atmospheric temperature	Minimum +10 °C / Maximum +30 °C
15	Relative humidity of air	Maximum 80% relative humidity
16	dew point	The substrate should be at least 3° above the dew point to reduce the risk of condensation and floor cracking.
17	Substrate temperature	Maximum 80% relative humidity
18	Water content of the substrate	< 4% pbw
19	Operating time	10℃@45min 20℃@30min 30℃@25min
20	Curing time	10 °C, 48 hours 20 °C, 24 hours. 30 °C, 12 hours.

CONSTRUCTION NOTES:

Mixing Ratio:

- The weight ratio of Component A to Component B is 16:4 (A:B).

Mixing Instructions:

- Mix the components thoroughly for 3–5 minutes manually or mechanically, until a uniform consistency is achieved.
- The mixed primer must be applied within 30 minutes using a roller or brush.
- NOTE: Do not add any thinning agents or foreign materials to the primer.

Application Timing:

- The next process (e.g., topcoat application) should be conducted 3 hours after the primer becomes tack-free.
- If the next process is delayed beyond 24 hours after the tack-free time, an additional coat of intermediate coat must be applied.
- Reapply the coat if rain or adverse weather conditions occur after the initial application.

Quartz Sand/Powder Addition:

- Quartz sand or powder can be added to the primer on-site if required.
- The recommended amount of quartz is 0.3–0.5 times the total weight of M02N.
- Ensure the quartz is completely dry and free from moisture before mixing.

HEALTH AND SAFTY:

Respiratory Protection:
When handling or spraying, always use an air-purifying respirator to protect against inhalation of harmful substances.

Skin Protection:
Wear rubber gloves and remove them immediately if they become contaminated. Ensure your body is fully covered with clean, protective clothing. After completing work, and before eating, drinking, or smoking, wash thoroughly with soap and water.

Eye/Face Protection:
Wear safety goggles to prevent splashes or exposure to airborne particles.

Waste Management:
Minimize or avoid waste generation whenever possible. If waste is produced, incinerate it under controlled conditions in compliance with local and national regulations.

Re-occupancy Guidelines:
Do not re-enter the work area without respiratory protection for at least 24 hours after spraying, ensuring proper ventilation is maintained.

Compliance:
Contractors and applicators must adhere to all applicable storage, safety, and handling guidelines. These safety measures are critical during the implementation process, as well as before and after exposure to loading machinery.

Waste Disposal:
Dispose of all waste in accordance with state and/or local regulations.

These precautions are essential to ensure the health and safety of all individuals involved in the process

RECOMMEND TOOLS:

The product can be applied manually using methods such as: trowel or scraper application, brushing with a short-bristle brush, or roller coating with a durable, short-nap roller. For a more efficient and even application, specialized spraying equipment can also be used.

RECOMMEND USAGE:

Normally, it is about 0.2 -0.3kg /㎡ , and the thickness of one-time construction is about 0.15-0.2mm.

PACKING:

Component A, 16 kg/pail,
Component B, 4 kg/pail.

STORAGE AND TRANSPORTATION:

The primer should be sealed and stored in a dry, cool, and well-ventilated area, away from direct sunlight, rain, and any sources of fire.

When kept in its original packaging and under the prescribed storage conditions, the product has a shelf life of 6 months from the date of production.

After opening the drum, please use the product as soon as possible and reseal the container when not in use.

The materials should be stacked stationary and handled carefully during transportation to avoid any violent collisions.

DISCLAIMER:

The information provided in this Technical Data Sheet (TDS) is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. We warrant that our products will meet our written liquid component specifications. The customers are advised to conduct their own tests and evaluations to ensure suitability for their intended application. Always follow local regulations, safety guidelines, and manufacturer recommendations.