
DESCRIPTION

Premera PolyBond MB is a multi-purpose, rapid cure, epoxy bonding and repair adhesive. Its specially formulated, non-sag property is ideal for bonding most materials together and is perfect for both overhead and vertical repairs, while still easily dispensed from most caulking guns. It has an application temperature range between 40 °F (4 °C) and 100 °F (38 °C).

FEATURES

- Easily dispensable from most caulking guns
- Rapid initial 3-hour cure at room temperature
- Moisture insensitive system and may be used on damp surfaces

TYPICAL USES

- Ideal bonding agent for most materials including concrete, brick, wood, stone, block and other substrates
- May be used as an adhesive or filler
- Capping paste and injection port adhesive for crack injection process
- Non-sag patching material for cracks and small spalls
- Ideal for overhead and vertical repairs
- Adhering replacement tile to surface of pool underwater by applying adhesive to dry tile and holding in place until initial tack

COLORS

Part A (Resin): White, Part B (Hardener): Dark Gray, Mixed: Concrete Gray.

PACKAGING

8.6 oz. (254 ml) cartridges. 12 Cartridges per case.

COVERAGE

Calculation for theoretical coverage: 40 Ft²/gal @ 40 mils on smooth nonporous substrate.

Note: The experienced job estimator will allow up to 50% contraction on small jobs and down to 15% for larger jobs.

STORAGE

Twenty-four months in factory delivered, unopened containers. Keep away from extreme heat, freezing, and moisture. Store at temperatures between 40 °F and 90 °F (4 °C and 32 °C).

MIXING

Ready to use. There is no need for mixing or diluting.

| TECHNICAL DATA (All values @ 77 °F / 25 °C) | US | Metric |
|--|-----------------------------------|-----------------------------|
| Solids by volume (ASTM D2697) | 100% | 100% |
| Volatile organic compounds (EPA CFR 40, Part 60) | 0.39 lb./gal | 46.88 gm/ lit |
| Theoretical coverage | 40 ft ² /gal @ 40 mils | 1m ² / lit @ 1mm |
| Specific Gravity of materials (ASTM D792) | A: 9.18, B: 10 lbs./gal | A: 1.1, B: 1.2 kg/ liter |
| Viscosity at 77 °F/25 °C (ASTM C881) | Non-sag | Non-sag |
| Shelf life @ 77 °F /25 °C | 24 Months | 24 Months |
| Compressive strength (ASTM D695) - 7 days | 6,120 psi | 42.2 MPa |
| Compressive Modulus (ASTM D695) - 7 days | 106,400 psi | 733.6 MPa |
| Bond strength. Hardened to hardened concrete(ASTM C882) – 2 days | 1,230 psi | 8.5 MPa |
| Bond strength. Hardened to hardened concrete(ASTM C882) – 14 days | 1,640 psi | 11.3 MPa |
| Bond strength. Plastic to hardened concrete(ASTM C882) – 14 days | 900 psi | 6.2 MPa |
| Water absorption -14 days (ASTM D570) | 0.41 % | 0.41 % |
| Linear coefficient of shrinkage (ASTM D2566) | 0.00015 % | 0.00015 % |
| PROCESSING PROPERTIES (Under standard lab conditions) | | |
| Mix Ratio V/V | 1:1 | |
| Gel time | 14 Minutes | |
| Tack free time | 3 hours | |
| Working time (Nozzle) | 30 Minutes | |
| <i>Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Variations are possible and expected. Values included above are per NCSI standard lab practices & methodology at various dry film thicknesses</i> | | |

SURFACE PREPARATION

Concrete:

Surface preparation will be dependent upon the application for the product. Old concrete must be clean and profiled or textured. New concrete should be a minimum of 28 days old. Prepare the surface by rough-grinding, scarifying, bush hammering or by using other equipment that will give a roughened profile. A roughened surface is imperative for good adhesion. Always be sure the bonding surfaces are prepared in advance before starting a new cartridge or mixing product. If possible, schedule dispensing to consume an entire cartridge at one time with no interruption of epoxy flow.

Metal:

All surfaces should be clean and free from contamination. The surface should be assessed and treated in accordance with ISO 8504, Abrasive blast the surface to minimum NACE-2/SSPC SP-10/Sa 2.5, as per ISO 8501-1, for a visual assessment of surface cleanliness with an anchor profile of 3 to 4 mils (75 -100 microns). Soluble salts must be removed to an acceptable levels. *Refer to NCSI surface preparation manual for detailed procedures for different types of substrates.*

CARTRIDGE PREPARATION:

1. Remove plastic cap and plug from threaded end of cartridge.
2. Place cartridge into standard caulking gun.
3. Check the expiration date on the cartridge to ensure it is not expired. Do not use expired product! Before attaching the nozzle dispense enough material into a disposable container until both resin and hardener flow evenly.
4. Attach mixing nozzle to cartridge and dispense a small amount of material into same waste container until a consistent color with no streaks is obtained.

SPALL REPAIR PREPARATION:

WARNING: Use Premera PolyBond MB for SMALL SPALL REPAIRS ONLY. A deeper or larger mass than recommended will generate excessive heat and may result in smoking, cracking and the material rising.

Always keep nozzle submerged in the adhesive while filling the spall to avoid entrapping air into the repair.

NOTE: For larger spalls use slower curing Epoxy Repair Paste Nukote PolyPatch CB

For Premera PolyBond MB, the spall should be ground to a maximum 1 in. (25 mm) depth and width no greater than 5 in. (127 mm) for repairs placed at 77 °F (25 °C) - spall size may need to be reduced at elevated temperatures.

Avoid a feathered edge by cutting around the spall into sound concrete with a grinder or circular saw using a diamond or concrete abrasive blade so the entire depth of the spall is consistent.

For patching concrete or wood surfaces, fill the void with Premera PolyBond MB to just above the surface level and trowel flush.

CAPPING PORTS FOR STRUCTURAL CRACK REPAIR:

Place and secure injection ports, or port bases, with the Premera PolyBond MB capping paste taking care not to leave any pinholes, noting that the port spacing should be approximately 6 - 12 in. (152 – 305 mm) apart.

NOTE: Do not allow the epoxy to block the passage between the port and the crack face.

Place additional Premera PolyBond MB between the ports making sure the entire crack is sealed off anywhere it is visible and accessible and make sure the ports are securely fastened to the concrete so they will not leak when injected under pressure.

Allow the Premera PolyBond MB to cure before injecting the crack with an ATC crack injection adhesive .

NOTE: Low temperatures will increase cure time, higher temperatures will decrease cure time

EQUIPMENT CLEAN UP

Always wear appropriate protective equipment such as safety glasses and gloves. Clean uncured materials from tools and equipment with mild solvent. Cured material can only be removed mechanically.

LIMITATIONS

- Product may discolor from UV exposure
- Once cured it can be coated or painted to meet desired appearance
- New concrete should be a minimum of 28 days old prior to crack repair
- Do not thin with solvents, as this will prevent cure
- NOT intended for repairing cracks subject to movement, so repairs should be made to the cracked member to eliminate the cause of the cracking prior to usage
- Product may sag when dispensing underwater into vertical cracks or spalls
- Adhesive in cartridge is fully dispensed when plunger reaches halfway

WARRANTIES AND DISCLAIMERS

Nukote Coating Systems International, a Nevada, USA Corporation warrants that this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product is dependent upon the proper mixture and application of the components by the applicator. Nukote Coating Systems has no role in the application of the finished polymer other than to manufacture and supply its two components. It is vital that the person applying this product understands the product and is fully trained and certified in the use of plural component equipment and application of plural component materials. There are no warranties that extend beyond the description on the face of this instrument, except when provided in writing, directly by Nukote Coating Systems International and executed under seal by a company officer.