

## Technical Bulletin

### EPOX5000 PREMIUM TRANSPARENT VERTICAL MASTIC (Knifegrade)

Two component epoxy mastic for marble and granite

Revised 10-2010 ARB

#### Description:

Two component epoxy resin with high transparency and very low yellowing for gluing, jointing and filling of various types of granites, marbles and stones, also very hard or crystalline ones, where the adhesion of polyester-based adhesives are sometimes insufficient. It is suggested for vertical and ceiling application, without VOC.

Epoxy thixotropic bi-component adhesive, exempt from solvent with thixotropic hardener, based on not yellowing cyclo-aliphatic amines, resulting in UV resistance. EPOX5000 Premium is the ideal product for workmanship of stones, for jointing and filling of natural stones (marble, granite), conglomerated or building materials (cement, concrete), resistant to weathering. Particularly suitable for vertical gluing.

EPOX5000 Premium is super transparent, has very high bonding strength and adheres well to slightly wet stones, can fill even large flaws and correct objects of value which otherwise would be considered waste.

It is weatherproof and has high resistance to solvents, alkalis (thus it is also suitable for use with cement), acids, and even salt water. He has virtually no shrinkage and can perform even major repairs with only one application.

It is possible to glue other materials with EPOX5000 Premium Liquid, including some types of plastics (polystyrene, ABS, polycarbonate), wood, glass and many others; it is not possible to stick silicone, Teflon, polyethylene, polypropylene, light polyurethane. Always perform a test before use.

#### Highlights:

- Reduced tendency to yellowing
- Super transparent clear
- Extremely low shrinkage
- Weatherproof gluing
- Excellent resistance to alkalis, therefore suitable for bonding with concrete
- Suitable for bonding material impermeable to gas, because product is free of solvents
- Excellent resin layering elements to create "sandwich" elements
- Good adhesion on slightly wet stone
- Suitable for bonding solvent sensitive materials
- VOC Content: 0

#### Technical Characteristics:

Appearance	Thixotropic liquid
Color	Clear matt transparent
Odor	characteristic
Specific gravity at 20°C/68° F	1,15 (Part "A") - 1,10 (Part "B")
Hydro-solubility	insoluble
Catalysis ratio	2 Parts "A" + 1 Part "B"
pH	Not determinable
Viscosity of A+B mix at 25°C/77°F	1750 cPs

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Pot life of mix (100 grams/3,5 oz "A" + 50 grams/1,8 oz "B")	60-70 minutes at 10°C/50°F 20-30 minutes at 20°C/68°F 15-20 minutes at 30°C/86°F 5-10 minutes at 40°C /104°F
Pot life at 20°C/68°F for different quantities:	20 g (0,7 oz) Part A + 10 g (0,35 oz) Part B: 35 - 40 minutes 50 g (1,8 oz) Part A + 25 g (0,88 oz) Part B: 25 - 30 minutes 100g (3,5 oz) Part A + 50 g (1,8 oz) Part B: 20 - 25 minutes 300g(10,6 oz) Part A + 150g(5,3 oz) Part B: 15 - 20 minutes
Hardness after 24 hours:	78-80 Shore D measured on 5 mm/0,2 in thickness
Adhesion on natural stone:	Cohesive breaking of stone: 4 - 7 MPa.
Three-points flexure (EN ISO 178):	Stress at break: 79 MPa - Module: 1600 MPa
Traction (EN ISO 527-1):	Stress at break: 42 MPa
Resistance to chemicals:	Solution of common salt at 10% Sea water Ammonia at 10% Sodium hydroxide at 10% Hydrochloric acid at 10% Gasoline Fuel oil Lubricating oil
<b>UV Resistance:</b>	(UV Lamp Spectronics ENF-260C/FE)
Long wave 365 nm	Excellent (no variation after 48 hours exposure)
Short wave 254 nm	Excellent (no variation after 48 hours exposure)
Shelf life at 20°C/68°F	12 months in original packing

#### Instruction for Use:

Surface to treat must be clean, dry and dust free; if possible, roughen them slightly. Mix thoroughly the two dosed components, in the ratio (by weight) of 2 : 1 (A : B), using small quantities of product in order to avoid waste from too fast curing (mass effect), usually 250-300 grams (8-11 oz per mixing) at a time are sufficient to obtain a good job. Pot-life (20-30 minutes a 20°C/68°F) will be longer at lower temperature and shorter at higher one; moisture can change reaction time, so it's better to avoid high humidity. Finishing (smoothing) can be run after 8-10 hours (at 20°C/68°F) from jointing, after 18-20 hours (at 20°C/68°F) can be sanded. Complete polymerisation will be after 7 days from applications. Do not apply at temperatures below 10°C/50°F.

#### Suggestion for Use:

- Avoid to use the mastic at temperature below 10°C (50°F) because drying process could not be complete.
- Epoxy resins are sensible to humidity because could change reaction times, it is advised not to apply the product in situation of high humidity.
- Never catalyze the total quantity of the mastic at one time in order to avoid "mass effect" because the mastic will dry quickly.
- Do not use hardener in different ratio than indicated on the tin or in the present bulletin; it will prejudice catalysis time and could never dry, or change the color of catalyzed product.
- Do not use the coloring paste in quantity more than 5% as it could prejudice the adhesion.

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- Part A and Part B should be taken only with different paddles/spatulas.
- Adhesive already thickened or in gel phase could no longer be worked.
- Tools can be cleaned with nitro solvent.
- Keep lid well closed and store product in a cool and ventilated place
- Avoid contaminating part A with part B.
- Read carefully recommendations printed on the tin before use.

#### Application on surfaces:

Granite, marbles, agglomerated and engineered stones, terrazzo and stones.

- Hardening process is accelerated by heat and delayed by cold.

#### Safety procedures:

As far as the proper working procedures is concerned, we recommend to consult [Material Safety Data Sheets](#) issued according to E.U. rules and to follow your national laws concerning safety in the working place.

#### Packing:

**1,500 kg kit (52,80 oz)**

6 kits of kg.1,500 [1 kg part "A" (35,2 oz) + 0,500 kg (17,6 oz) part "B"]

The composition of the tins is Steel (ACC). After use, comply with the local and national regulations currently in force regarding recycling.

Our packing is conformed as per U.N. rules for inland transport (A.D.R.) and by sea (I.M.O.) for transportation via air refer to updated rules (I.A.T.A.). For further information regarding transport please check MSDS.

#### Custom Tariff:

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