MELZI edilizia e restauro

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RESTORATION: Resins and emulsions

DUALENE EPX INZ

Technical data sheet

DESCRIPTION AND FIELDS OF APPLICATION

Two-component, low-viscosity, solvent-free epoxy-based structural sealant system with polyamide curing agent, also for use by injection. The system is used in the bonding of detached stone, masonry, and wooden parts and in the attachment of reinforcing elements (pins); the sealing of small joints (<1.5 mm), in concrete structures, after mixing with quartz; the anchoring to concrete structures of metal reinforcing elements (beton plaqué).

MAIN CHARACTERISTICS

High mechanical strength and adhesive capabilities, no shrinkage; chemical resistance and water impermeability. The system has low viscosity, making it suitable for injection even into small cavities. The pot life is adequate to allow the flow of the catalyzed product. Curing is completed in approx. 10 days at 20°C.

APPLICATION DATA

Injections - Structural bonding

substrates must be clean, free of substances that may hinder adhesion (oils, greases, waxes, silicones); loose or detaching parts must be removed (brushing, sandblasting, vacuuming). When filling small cavities, provide air suction.

For structural bonding, it may be necessary to load the fluid epoxy system with appropriate silica sand (quartz) mixture; the particle size scale of the mineral aggregate should be proportional to the filling thicknesses, from the finest ventilated type, up to 1.2 mm. The maximum filler ratio is 1:5 by weight, referring to the catalyzed epoxy system. As the amount of aggregate increases, the fluidity of the mixture is reduced is its injectability; the most heavily filled mixtures are applied by trowel. As an alternative to adding filler, use the thixotropized version (**DUALENE EPX INZ TIXO**)

Beton plaquè

Cementitious surfaces must have been cured for at least 40 days and free of release agent or other substances that hinder adhesion; loose or detaching parts must be removed (brushing, sandblasting, vacuuming).

Metal surfaces of reinforcing structures must be adequately prepared to remove traces of rust or calamine and/or greasy residues by sandblasting (SA 2.5), grinding, solvent washing.

Base product and hardener should be mixed thoroughly before use, preferably mechanically at low speed. Use times are significantly reduced as room temperature and mixed quantities increase.

Depending on the type of use, application can be done by casting, by injection, by spraying (including airless), by trowel.

Operate at temperatures 10-30°C; use at lower temperatures prevents catalysis of the product.

For equipment cleaning use alcohol or thinner (for epoxy, nitro).

YIELD

Yield varies with absorption in the case of porous substrates and roughness. With the unfilled system, 1.1 kgm2/mm thickness is consumed; when using with mineral aggregate, consumption varies with the amount and size of the filler. By way of explanation in the 1:5 ratio, the mixture consumption is 2.2 kg/m2/mm thickness, of which 0.37 kg is epoxy system..

TECHNICAL DATA

Mixing ratio by weight (P base/Ind.)	100/55
Density	1.06 to 1.10 kg/L
Viscosity	900 cps
Pot life of the mixture (125 g at 20°C)	50 min.
Storage stability original packages	min.12 months
Min. storage temperature	>5°C
MIXTURE (20 days at 25°C)	
Martens point (hardening 30 days)	67°
Flexural strength	5200 N/cm^2
Compressive strength	10500 N/cm^2
Tensile strength	3600 N/cm^2
Water absorption	< 0.1%
Adhesion to iron	> 3500 N/cm^2
Adhesion to concrete	> 10500 N/cm^2
Compressive elastic modulus	3000 - 4000 N/cm^2
Elongation	3 - 4 %
Coefficient of linear thermal expansion	18 - 20 x 10^{-6} °C^{-1}

VERSION 18/12 Product for professional use.
The user must evaluate if the product is suitable for the use as type and modality of use, on which the final performance depends.
This sheet replaces and cancels the previous ones.

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