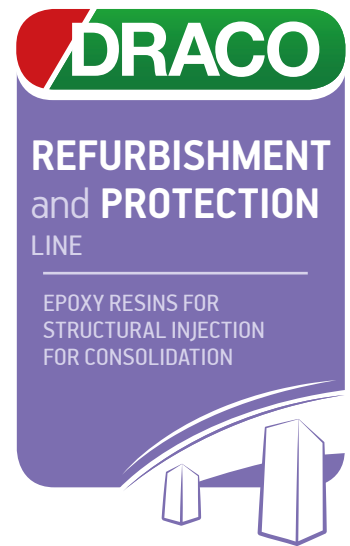


EPOX INIEZIONE R.M.3

TWO-COMPONENT, SOLVENT-FREE FLUID EPOXY RESIN WITH LOW VISCOSITY FOR REINFORCEMENT INJECTIONS AND REPAIRS BY POURING

Ideal for hot climates



EPOX INIEZIONE R.M.3 is a two-component epoxy resin with low viscosity for reinforcement injections repairing hairline cracks and structural damages. **EPOX INIEZIONE R.M.3** is used for structural reinforcement of concrete, brick, sandstone, stone materials and construction materials, even if they show low porosity. **EPOX INIEZIONE R.M.3** must be injected at low pressure and is effective even at low temperatures. Its fluidity and adhesion to both standard and damp substrates make it also ideal for repairing structures by pouring on concrete. Its long pot life increases both its impregnation and diffusion in the substrate even where there are very fine cracks and small damages and in hot climates.

BENEFITS

EPOX INIEZIONE R.M.3 is a two-component epoxy resin for reinforcement injections. Specific product features:

- ✓ **FLUIDITY AND HIGH INJECTION EFFICACY:** **EPOX INIEZIONE R.M.3** has fluid consistency, low viscosity and penetrates effectively even in compact materials and micro-cavities.
- ✓ **IT IS NOT ADVERSELY AFFECTED BY DAMPNESS:** **EPOX INIEZIONE R.M.3** is not affected by the presence of dampness both during application and operation, even if it is high.
- ✓ **HIGH MECHANICAL STRENGTH:** **EPOX INIEZIONE R.M.3** develops high mechanical strength and provides structural bonding.
- ✓ **CHEMICAL RESISTANCE:** **EPOX INIEZIONE R.M.3** exhibits superior resistance to water, salts and aggressive solutions.
- ✓ **IDEAL FOR HIGH-TEMPERATURE APPLICATIONS:** Its long pot life formula makes it also suitable for application at high temperatures (+35° C).



IDEAL FOR

EPOX INIEZIONE R.M.3 is a two-component epoxy resin for injection ideal for:

- ✓ Structural reinforcement and monolithic restoration of pillars, beams, floor slabs and cracked concrete elements;
- ✓ Impregnation of concrete, brick, sandstone, and all stone materials in general, even if they show low porosity;
- ✓ Restoration of the structure's monolithic nature by injecting and filling micro-cracks and structural damages both superficial and deep, even in the presence of water;
- ✓ Creation of insulating barriers to prevent rising damp in buildings while providing structural reinforcement.
- ✓ Waterproofing restoration of cracked reservoirs and containment tanks.



HOW TO USE

SUBSTRATE CLEANING

Remove all loose and crumbling parts from the area to be restored by sandblasting or brushing taking care not to damage the structures. Remove stains, residues of oil, grease, paint, dirt, etc.

For impregnation and repairing of fissures and cracks on horizontal surfaces, **EPOX INIEZIONE R.M.3** can be applied by pouring.

SEALING OF CRACKS BY INJECTION

If structural restoration is needed, it will be necessary to make repeated injections at low pressure. The operating cycle is as follows:

Positioning of STARJET BC injectors

Depending on the extent and depth of the damage, evaluate the position and number of injection spouts and place them in the cracks: usually, they are applied 10-20 cm apart from each other. Seal the crack and fix the injectors tubes with EP FIX epoxy paste. Use fix flat head injectors.

In case of small cracks, loose parts or non-visible damages, make a series of holes of 8-9 mm diameter evenly distributed according to the size of the crack, and bore them. Thoroughly clean surfaces from dust with compressed air and insert the injection tubes into the holes by fixing them with EP FIXES epoxy adhesive and seal the crack.

PRODUCT PREPARATION

The two components of EPOX INIEZIONE R.M.3 are provided in two separate packages:

- ▶ A - base formulation
- ▶ B - hardener

Mix component A (base) and B (hardener) each in its own container before joining the two components. Do not use partial quantities: a wrong mixing ratio could cause damage during the hardening process. Pour component B in a suitable container and then add component A. Mix for a few minutes using a low-speed mechanical stirrer to avoid dragging air into the mix till getting a well-blended and uniformly coloured mix. Workability time may vary depending on the amount of mixed product, the thermo-hygrometric environmental conditions and the substrate temperature: higher temperatures or large amounts of product will reduce the time.

APPLICATION BY INJECTION UNDER PRESSURE

Wait for the curing of EP FIX epoxy paste (about 24 hours at 20 °C) and inject compressed air to verify that the internal voids are communicating. In this way the resin will be uniformly spread. Start the injection of **EPOX INIEZIONE R.M.3** with a suitable low-pressure pump to avoid that the rapid hardening of the material impedes proper application (workability: about 25 minutes at 25° C). Start from the lowest spout and inject until the resin overflows out of the next injector. Now stop injecting and close the access spout and inject the product in the next injector positioned just above. Proceed by repeating this operation from bottom to top until the crack is completely sealed.

EPOX INIEZIONE R.M.3 can be used as structural adhesive even in the presence of water. In this kind of interventions it is particularly important that the resin, which has a specific gravity greater than that of water, is injected in such a way as to progressively remove the latter from the crack, thus allowing contact between the resin and the two walls to be "welded".

SAFETY INSTRUCTIONS

- ▶ Use rubber gloves and safety glasses while applying and cleaning tools.
- ▶ Do not apply on dirty or crumbly surfaces.
- ▶ Product for professional use.

EPOX INIEZIONE R.M.3



PACKAGING AND STORAGE

EPOX INIEZIONE R.M.3 is available in:

- ▶ 1 kg + 0.32 kg pails = (A + B) 1.32 kg
- ▶ 5 kg + 1.60 kg pails = (A + B) 6.60 kg

If the product is stored properly in its original packaging, at a temperature of not less than + 10° C, it maintains its original features for one year.



PRODUCT FEATURES

CONSISTENCY AND COLOUR	Comp. A: clear liquid Comp. B: clear liquid
VISCOSITY (25°C)	Component A: 600÷800 MPa.s Component B: 20÷30 MPa.s
STORAGE	12 months

APPLICATION DATA

MIXING RATIO	A:B = 1:0.32
APPEARANCE AND COLOUR	Transparent fluid
SPECIFIC GRAVITY (A+B) AT 20°C	approx 1.1 kg/l
DRY SOLID CONTENT	100%
VISCOSITY (25°C)	200÷350 MPa.s
WORKABILITY AT +25°C	approx. 140 minutes
TOTAL CURE TIME (25°C)	7 days
APPLICATION TEMPERATURE RANGE	from +10° C to +35° C
CONSUMPTION	approx. 1.1 kg per dm ³ of the cavity to be filled

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PERFORMANCE CHARACTERISTICS UNI EN 1504-4

CHARACTERISTIC PERFORMANCE	TEST METHOD	REQUIREMENTS ACCORDING TO UNI EN 1504-4	PRODUCT PERFORMANCE
COMPRESSIVE STRENGTH	UNI EN 12190	> 80% of the value declared by the manufacturer after 7 days	> 50 MPa
FLEXURAL MODULUS OF ELASTICITY	UNI EN ISO 178	-	3100 MPa
SHEAR STRENGTH	UNI EN 12188	-	19.4 MPa
OPEN TIME	UNI EN 12189	-	60'
COMPRESSIVE MODULUS OF ELASTICITY	UNI EN 13412	-	3200 MPa
GLASS TRANSITION TEMPERATURE	UNI EN 12614	≥ +45°C	84°C
COEFFICIENT OF THERMAL EXPANSION	UNI EN 1770	-	24x10 ⁻⁶ /K
DRY SHRINKAGE	UNI EN 12617-1	-	0.04%
SUITABILITY FOR INJECTION	UNI EN 12618-2	-	Pull-off strength of concrete
ADHESION	UNI EN 12636	-	Cohesive fracture of concrete
SHEAR DURABILITY AFTER HUMIDITY AND THERMAL EXPOSURE	UNI EN 13733	-	Concrete failure
OTHER CHARACTERISTICS			
FLEXURAL STRENGTH	ISO 178	-	> 20 MPa
TENSILE STRENGTH	ISO 527-1	-	55 MPa
ELONGATION AT BREAKAGE	ISO 527-1	-	4%
SHEAR ADHESION STRENGTH	EN 12188	-	at 50°: 48 MPa
Shear angles			at 60°: 56 MPa at 70°: 72 MPa

Legal notice - SLCMP version dated 01.03.2017

In the technical specifications herein, Draco Italiana s.p.a. used the indicators therein specified, with the relevant standards.

Please check if this Sheet and the figures therein contained apply to the product batch you are interested in or if they have been overridden by any later release. If in doubt, check whether this Sheet matches the one applicable at the time of finalising the sales agreement, at www.draco-edilizia.it, and/or contact our Engineering Department.

No advice provided by our staff, either verbally or in writing at your request, about the potential applications of the Products shall be binding under the sales agreement or shall be considered an integral part of the agreement. Such advice is based on our experience and on the best available practical and/or scientific knowledge; as such, it shall not be binding or conditional on the buyer or user. Please try our products first to find out whether they are fit for your intended use or application; in any case, you shall be solely responsible for your choice.