



IMPLAREST® EP

100% solid two-component epoxy adhesive, special for the bonding of new concrete with old concrete and as a protection primer of steel reinforcements.

DESCRIPTION

Epoxy 100% solid, two-component adhesive, specially formulated for bonding new and old concrete. Once mixed a semi-fluid liquid is obtained which may be applied above 10°C. It can be used as protection barrier of the steel of the reinforced concrete. It will be applied on the clean reinforcement.

TECHNICAL CHARACTERISTICS

Resin based epoxy product and a hardener.

ADVANTAGES AND USES

- Suitable for all types of screeding on horizontal surfaces (floors) as well as vertical surfaces (walls) and ceilings.
- Joints between hardened and fresh concrete, provides monolithic joining of the two elements.
- Good mechanical resistance on the joint.
- Structural reinforcing through bonding between fresh concrete over hardened concrete.
- Excellent bonding and consolidation of the substrate.
- Sealing and filling of cracks and fissures in concrete substrates.
- Hardening without shrinkage.
- Fast application and curing.
- Protects and passivates steel. Anti-corrosion primer for steel reinforcement. Impervious to oxygen and chlorides.
- Great penetration and filling capacity due to its good fluidity.
- High efficiency even on surfaces with some humidity. In case of doubt, consult the technical department.
- Solvent free.
- In critical environments when extra protection is specified.
- Compatible with reinforcement steel and repair mortars.

SUITABLE SUBSTRATES

PREPARATION OF THE CONCRETE SURFACE:

- The support must be in good condition, clean, free of grease, release agents, cement grouts, oils, dust and poorly adhered parts. It must be structurally sound; with a minimum compressive strength of 15 N / mm² and a surface tensile strength of 1.0 N / mm².
- Obtain a surface with open porosity by blasting or scarifying in order to ensure good penetration in the case of closed-pore pavements.

PREPARATION OF THE SURFACE OF THE ARMOR:

- The reinforcements must be deoxidized to grade S_A2 according to ISO 8501-1 in all the reinforcement to be protected, including the back of the reinforcement.

CONCRETE REPAIR

IMPLAREST® EP

APPLICATION PROCEDURE

MIXTURE:

- Pour component B over component A, ensuring the complete mixing of both and avoid errors with dosage.
- Mix both components mechanically, if possible, at a low speed for 3 minutes (less than 500 r.p.m.), until a totally uniform consistency is obtained.

APPLICATION:

Application as bonding primer

- Apply the product with a roller, brush or airless spray. Cover the entire surface, the colour of the product will permit identifying the areas where product has already been applied.
- On high-porosity concrete it is advisable to apply two layers.
- The new concrete must be poured before the bonding open time has expired.
- The fresh concrete / mortar must be applied when the Implarest EP bonding mortar is fresh and tacky. Only then can the necessary physical-chemical bonding between both materials be achieved.

Application as a protective primer for reinforcement armor

- Apply the product with a brush or airless mixed in a homogeneous layer on the armor.
- In the case of smooth reinforcement (without corrugation), use the bonding bridge with a large amount of dusting in order to create an optimal roughness.

CURING:

- The speed of curing depends on the temperature of the components, the substrate and the atmosphere.
- If it is left for more than 24 hours, the surface must be sanded with sandpaper and a new layer of IMPLAREST EP applied.
- In exceptional cases, 5% of solvent may be added to the mixture at the moment of application.
- The solvent used should be xylene.

RECOMMENDATIONS

- Do not mix the product at temperatures lower than +10°C or higher than +30°C.
- Epoxy based product that could irritate the skin, therefore it is advisable to always use gloves, protective goggles and safety jackets.
- Tools and instruments should be washed with water immediately after use, to avoid hardening of the material which would need to be removed mechanically.
- Consult the Technical Department for any application not specified in this Technical Datasheet.
- For all information regarding safety during handling, transport, storage and use of product please consult the current version of the Product's Safety Sheet.

PACKAGING AND STORAGE

Two-component predosified sets:

- Component A: 4.150 kg.
- Component B: 0.850 kg.

Shelf life: up to 24 months in sealed original packaging, sheltered from weather conditions and humidity.

CONCRETE REPAIR IMPLAREST® EP

TECHNICAL DATA

(Statistical data obtained under standard conditions)

Colour	White-Beige
Density	1.55 ± 0.05 kg/l
Viscosity of mixture	4,000 – 6,000 m.Pa.s a 20°C
Weight solids	100%
Recommended consumption	0.4 – 1 Kg/m ² according to substrate rugosity
Mixture proportion	Base / Reactor = 100:20 parts in weight
Pot-life (250 g):	
10°C	2.5 hours
20°C	1.5 hours
30°C	1 hour
Bonding open time:	
10°C	7 hours
20°C	4.5 hours
30°C	3 hours
Application	Brush, roller or airless spray
Hardness Shore D	80 (DIN 53505)

CE MARK

 GRUPO PUMA SL Avd. Agrupación Córdoba, Núm.17 14014 (Córdoba) 12 N°: 502-2287-1 EN-1504-4 IMPLAREST EP Product for structural bonding with steel reinforcements, for different, uses to those with lower features.	
Bonding/Adhesion	Pass
Resistance to shear stress	>6 N/mm ²
Resistance to compression	≥ 30 N/mm ²
Retraction / Dilatation	≤ 0.1%
Workability	≤ 45 min
Sensibility to water	Pass
Elasticity module	≥ 2000 N/mm ²
Thermal dilation coefficient	≤100 m/m°C
Glass transition temperature	≥ 40°C
Reaction to fire	NPD
Durability	Pass
Hazardous substances	According to point 5.4



CONCRETE REPAIR

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GRUPO PUMA SL
Avd. Agrupación Córdoba, Núm.17 14014 (Córdoba)
12
Nº: 502-2287-2

EN 1504-7
IMPLAREST EP

Epoxy barrier for armor protection, in buildings and in civil engineering works with low performance requirements

Diffusion resistance	NPD
Protection against corrosion and workability	Pass
Durability	Pass
Glass transition temperature	10 k over the maximum of service
Shear adhesion (pull strength)	NPD
Hazardous substances	According to point 5.3

LEGAL DISCLAIMER

The instructions for use are given according to our tests and knowledge and do not imply any commitment by GRUPO PUMA nor free the consumer from the examination and verification of the products for their correct use. Claims must be accompanied by the original packaging to allow a proper traceability.

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