

EPOLOCK™ 1200

LOW VISCOSITY INJECTION EPOXY ADHESIVE

For cracked concrete application



EPOLOCK 1200 glue is a two-component epoxy-based resin with very low viscosity. This resin can be used to inject into concrete cracks and small holes. The rate of penetration of this resin into the concrete is very high and makes the whole concrete completely waterproof and resistant.

APPLICATIONS

- ✓ Repair and sealing of concrete parts such as floors, tunnels, columns, corridors, beams, dam bodies, water channels, concrete bridges
- ✓ Reinforcement of porous low strength concretes
- ✓ Filling the empty space between concrete and metal plates
- ✓ Repair and cover all kinds of building components
- ✓ Planting rebar and metal columns
- ✓ Preparation of epoxy mortar

KEY PROPERTIES

- ✓ High chemical resistance
- ✓ Low shrinkage
- ✓ Average usage time
- ✓ Good permeability inside cracks and holes
- ✓ Low viscosity

PRODUCT DATA

Characteristics Hardner/Resin	Liquid
Viscosity of the mixture at 25°C	1000 - 1200 Centipoise
Density	1.2 grams/cm ³
Flam Time	More than 100 °C
Gel Time 100 gram	40 minutes at 25°C

INSTRUCTIONS

Surface Preparation

Concrete surfaces:

The surface must be free from all weak materials, dust, mold oil, paint, mud, etc. In general, the surface must be cleaned of any materials that prevent adhesion. Broken and destroyed concrete must be removed before the repair of the coating, as well as weak concrete and mortar to be The work surface must be smooth, depending on the size of the work surface

and the type of pollution, sandblasting or manual grinding can be used to clean the concrete surface. The concrete surface should also be free of any oil and grease. If necessary, use strong industrial solvents. Although this adhesive has good adhesion to unprepared surfaces, if possible and to obtain better results, freshen and roughen the concrete surface by sanding. Otherwise, wash with acid. In case of acid washing, the concrete must be dried for 24 hours.

Metal surfaces:

The metal surface must be cleaned of waste materials such as rust and paint, which can be used using common methods such as wire brush, grinding, sandblasting, etc.

Mixing percentage	Weight (gram)
1200 A	100
1200 B	33

Pour the resin and hardener into a clean container in a ratio of 3 parts resin and 1 part hardener by weight and mix completely until it is uniform. If it is necessary to add filler, it should be added slowly and in several steps until it is completely mixed. If the fluid is not well mixed, it will not reach the maximum mechanical strength.

The time required to reach the final strength according to the temperature	
Temperature (°C)	Time (Hours)
5	48
15	36
25	24
40	12

EPOLOCK™ 2100

Two component epoxy adhesive

For medium temperature and chemical resistance



EPOLOCK 2100 is a two component, thixotropic paste based on high reactive polymers that cures at room temperature. formulated for bonding joints on glass fiber reinforced epoxy pipe and fittings. It has good resistance to sea water and common chemicals and offers temperature resistance up to 100 ° C.

Properties of Cured Adhesive

100°C	Maximum operating temperature
40 MPa	Tensile strength
15 MPa	Shear strength
90 MPa	Compressive strength
11 MPa	Elastic modulus
40 MPa	Bending strength
36 MPa	Shear strength of concrete to concrete

Storage

EPOLOCK 1200 adhesive is supplied in sealed containers and its maximum storage time is 1 year at a temperature of 25 degrees centigrade. The date of production and expiration of the glue is written on the cans

Packing

This product is available in 4 and 20 liter containers. In each package, the amount of resin and hardener has been placed in the appropriate ratio.

Crack sealing method

We mix part A and part B completely and inject the mixture inside the crack using an injection device or by pouring it on the crack.

✓ Crack preparation: The crack preparation for adhesive injection can be done by one of the following methods:

1. Warming the place of the crack

Slowly heat the concrete around the crack to a temperature of 80 °C and apply the mixed glue like paint on the crack. The glue penetrates into the crack while it is cooling down and after the baking process is completed, it creates a suitable seal in the place of the crack.

2. Capillary method

In this method, the place of the crack is washed with a solution such as acetone, and then the glue is applied to the crack using a hair pen. After the evaporation of acetone, the adhesive is absorbed into the crack, and the crack becomes a waterproof adhesive after baking. Pressure injection method In this method, it is necessary to seal the crack first with EPOLOCK 1100 glue, which is an anti-skid glue with high viscosity. If the cracked wall is inclined, it can be ensured that the EPOLOCK 1100 adhesive will have higher adhesion to the concrete around the crack. Inside the EPOLOCK 1100 glue, nipples are planted to inject the glue at intervals of 20 to 40 cm depending on the depth of the crack.

These nipples will be injection sites of EPOLOCK 1200 glue inside the cracks. In cracks with more depth, the distance of the nipples should be considered less. After the EPOLOCK 1100 glue is cooked, the EPOLOCK 1200 glue is injected into the crack from the place of the implanted nipples using the injection device. The glue is injected from the lowest nipple and the injection continues until the injected glue is removed from the adjacent nipple. After this stage, the nipple is blocked with a screw or another suitable means, and this process is repeated for other nipples until the crack is filled with glue. In some cases, if the crack is deep, it is necessary to seal the crack on the opposite side of the injection site wall with EPOLOCK 1100 glue.

Cautions

- ✓ Keep out of reach of children.
- ✓ In case of contact with skin, flush thoroughly with water.