



# EP 320

## Solvent-free, low viscosity epoxy resin

### DESCRIPTION

EP 320 is a two-component, low viscosity epoxy resin designed for sealing cracks in concrete. It is highly penetrative and cures to form a permanent seal and is capable of restoring structural integrity to the concrete element.

### USES

Repair and sealing of static and limited movement cracks in concrete. Typical examples such as:

- Columns
- Beams, Chimneys, Retaining walls, bridge decks and industrial floors

### FEATURES

- Low viscosity: penetrate deeply into crack widths of 0.10 - 10 mm
- Good bond to cementitious substrates
- Chemical resistant
- Solvent free
- Supplied in pre-weighed quantities for convenient site mixing

### PHYSICAL PROPERTIES

EP 320 @ 27 ± 1°C

Appearance	Pale yellow liquid
Mixed Density	1.10 g/cc
Viscosity	250 ± 50 cps
Pot Life	30 Minutes
Tack free time	6 Hours
Compressive Strength ASTM C579	
24 hours	> 55 N/mm <sup>2</sup>
7 days	> 60 N/mm <sup>2</sup>
Shrinkage ASTM C881	Passes
Full Chemical Cure	7 days
VOC Content	299.51 g/l

### COVERAGE ESTIMATES

#### Pack size

##### 1 kg

Part A 750 g

Part B 250 g

##### 4 kg

Part A 3 kg

Part B 1 kg

#### Coverage

Depends on the width of the crack/porosity of the substrate

### APPLICATION INSTRUCTIONS

#### Substrate preparation

Remove all surface laitance and containments for minimum 50 mm width of either side of the crack using wire brush and/or oil-free compressed air.

#### Mixing

Both Part A and Part B components should be thoroughly stirred before being mixed together. The entire contents of the Part A should be poured in a mixing vessel and add Part B. Mix thoroughly using a mechanical mixer to achieve a smooth homogenous mix. Part mixing should be avoided. One or more packs can be mixed simultaneously to ensure a quick rate of application.

#### Application

##### Method 1: By gravity for wide cracks in horizontal surfaces

Wide cracks in horizontal surfaces can be filled by simply pouring EP 320. It may be necessary to create a reservoir by applying mastic bead on either side of the crack (approx. 5 mm from edge of the crack) and at suitable intervals. This will help for gradual and uniform filling of the crack. After the resin has dried, the excess resin can be removed by grinding process. Alternatively, tack EP 320 can be sand seeded to provide mechanical key for subsequent applications.

##### Method 2: By injection for hairline cracks

Drill holes into the crack up to minimum depth of 15 - 25mm. The distance of injection packers depends on the crack severity and the nature of the structure, but with maximum centre-to-centre distance of 1000 mm. Blow high pressure air into the holes to clean it of all drill dust. Close the whole length of crack using EP 305 epoxy repair compound.

**Note:** If cracks are very fine, drilling should be avoided as the dust produced may block the crack and hinder the injection process. In such instances, it is recommended to surface injection packers glued with EP 305.

Once all injection packers have bonded to the surface and the cracks are sealed, the injection process maybe commenced.

The mixed EP 320 is injected/grouted into the cracks using a low pressure, air operated injection equipment or hand operated cartridge gun. Inject into the lowest packer keeping all others closed except the next immediate one. When the EP 320 start coming out of the next packer, close it and continue injection in the packer above. Repeat the process until the crack has been injected. Allow to cure over night and remove the packer. Fill the resulting cavity with EP 305.

### CLEANING

EP 320 can be removed from tools and equipment by using RTC 100 immediately after use. Any hardened material will need to be removed mechanically.

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### STORAGE AND SHELF LIFE

EP 320 has a shelf life of 12 months if kept in a dry, clean store between 5°C and 30°C in the original unopened containers. The product should be protected from frost, away from direct sunlight and sources of heat.

### PRECAUTIONS

During mixing and application the following precautions should be observed: Ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water. Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to resin-based materials. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

### DISPOSAL/SPILLAGE

Spillage of any of the product components should be absorbed onto sand or other inert materials and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

For further information please refer to the Material Safety Data Sheet.

### CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

### NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products. However, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

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