

# QUANTOM

Structural Systems

QUANTOM® EPR 3003



QUANTOM® EPR 3003 is a 2-component, high strength, solvent free, low viscosity injection resin based on selected epoxies. It can be used for crack injection in concrete or other masonry materials. The product complies with ASTM C881.

#### WHERE TO USE

QUANTOM® EPR 3003 is based on very low viscosity resins. It is ideal for filling and sealing cavities and static cracks (from widths greater than 100 microns) in structural elements such as columns, beams, foundations, wall and floor slabs. It forms an effective permanent seal against ingress of corrosive fluids and gases. Also structurally bonds the concrete sections and is capable of providing integrity to structural elements.

#### ADVANTAGES

QUANTOM® EPR 3003 is an extremely strong adhesive that offers many advantages to the user:

- Excellent adhesion to concrete and most construction materials.
- Tolerant of moisture before, during, and after curing.
- Excellent early and final mechanical strengths.
- Excellent chemical resistance.
- Impact and shock resistance (hard but not brittle).
- Very low viscosity.
- Good wetting properties, can penetrate in to very narrow cracks.
- Easy to use.
- Low odor.
- Shrinkage free while hardening.
- Will not corrode reinforcement.
- Suitable for use in both, dry and damp conditions.

#### HOW TO USE

Surface preparation

Preparation of cracks for injection depends on injection method. In each method of injection, all cracks to be treated should be cleaned by vacuum cleaner or flushed out with clean, dry, and oil free compressed air. This should be done after drilling of injection holes or fixing nipples.

#### APPLICATION

Thoroughly mixed QUANTOM® EPR 3003 should be injected using an injection gun or an air less pump. Injection should be started from the lowest injection point (nipple or packer). Inject material until it seeps out from upper injection point. Block the first injection point and continue the injection process upward. Continuing the process until the whole length of the crack has been injected. It is strongly recommended to allow injection specialist and proper equipment be implemented for any injection job.

## TECHNICAL INFORMATION

Description	Value
Colour	Light yellow liquid (mixed), Comp. "A": Transparent, Comp. "B": Amber
Mixing Ratio	A : B = 4: 1 by weight or volume
Density (at 25 °C)	1.050 kg/l (mixed)
Bonding strength	2.5 MPa (7 days)
Compressive strength	55 MPa (7 days)
Flexural strength	35 MPa (7 days)
Service temperature	-35 to +65 °C
Full-cured	After 14 days (at 25 °C)
Working Time / Pot life	40 min. (25 °C)

**Mixing**

Stir each component separately. Add component "B" to Component "A" and mix them thoroughly using a low speed drill (max. 400 rpm) fitted to the suitable paddle at least for 2 to 3 minutes or until a uniform color is obtained. For partial mixing, pour 1 part of component "B" and 4 parts of component "A" by weight into a clean pail and mix them thoroughly. Mix only required quantity which can be used within the pot life.

**Surface preparation**

Preparation of cracks for injection depends on injection method. In each method, all cracks to be treated should be cleaned by vacuum cleaner or flushed out with clean, dry, and oil free compressed air. This should be done after drilling of injection holes or fixing nipples.

**Material consumption**

As a sealer: 250 to 350 g/m<sup>2</sup>, depending on surface roughness.  
As an injection resin: depending on cracks condition.

**Limitations**

Width of cracks to be injected: 0.1 to 9 mm  
Minimum permissible substrate temperature: + 5 °C.  
Maximum permissible substrate temperature: + 35 °C.  
Do not thin QUANTOM® EPR 3003 by solvent. Solvent will prevent proper curing.  
Age of concrete must be 21~28 days, depending upon curing and drying conditions.

**Storage / Shelf life**

Store out of direct sunlight, and protect from extreme heat and rain fall. The shelf life for originally unopened package is 12 months from date of production.

**Delivery**

QUANTOM® EPR 3003 is available in 1.0 or 3.0 liters Total units

**Safety precautions**

Product may cause skin irritation. Wear gloves and goggles. In contact with eyes or mucous membrane, flush immediately with plenty of warm water and seek medical attention without delay.