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# **Denepox<sup>™</sup> LM**

Two-component flexible epoxy injection resin for concrete injections, and can be used in either dry or wet conditions

## **Product Description**

Pre-weighted two-component epoxy resin, which cures into a flexible compound. Suitable for applications in dry or wet structures with slight movements, where a flexible product is required.

- A-component : epoxy resin.
- B-component : polyamine hardener.

## **Field of Application**

- Low pressure injection for flexible bonding of cracks and microcracks in dry or wet concrete
- Bonding
- · Sealing of porous low density concrete
- Flexible joints in floors
- Denepox™ LM is not suited for applications in contact with moving water

#### **Product Advantages**

- · Insensitive to humidity
- · Cures in damp/wet environment
- · Deep penetration in the cracks
- Very good adhesion: exceeds concrete cohesion
- Solvent free
- Cured Denepox LM is resistant to acids, alkalis, oils, greases and petroleum derivatives (\*)

(\*) For chemical resistance please contact your local GCP representative.

## **Application**

#### 1. Surface preparation

Surfaces to be repaired or sealed must be clean and sound. The
concrete surface must be free of dust, laitance, sealers, grease or
any other contaminants that might influence bonding of the resin
to the concrete.

#### 2. Injection ports

• Entry ports for injecting should be approved devices spaced at appropriate intervals to accomplish full penetration of the resin into the cracks or voids.

#### **Drilled ports**

• Drilling of cracks for packers needs to be executed in accordance with local regulations. After drilling the hole, insert packer.

#### Glued ports (plastic or metal)

- The injection ports should be fixed to the surface of the crack with Multitek Adhesive SDW.
- Apply a layer of Multitek Adhesive SDW, polyester paste or fast curing cement to the surface of the crack.

#### 3. Mixing

- Mix the pre-weighted quantities of resin (A-component) and hardener (B-component) with a low speed mixer (300rpm) until a homogeneous liquid is obtained. Never mix more material than the quantity that can be used up within 20 minutes.
- · Mix ratio A/B: 1/1.1 by weight.

#### 4. Injection

- The crack can be injected with a manual (single piston) pump or a mechanical (single or double piston) injection pump.
- Uncured material and equipment should be cleaned with Washing Agent Eco.

#### **Appearance**

#### Pre-weighted kit

A-component: Transparent liquid
B-component: Yellow transparent liquid
Colour: Amber transparent

#### Consumption

Has to be estimated by the engineer or operator and depends on width and depth of the cracks and voids.

## **Technical Data / Properties**

Property	Value	Norm
A-component	-	
Density At 23°C	Approx. 1.11g / cm <sup>3</sup>	ASTM D-638
Viscosity At 25°C	Approx. 850 - 990 mPa.s	ISO 3219
B-component		
Density At 23°C	Approx. 0.97g / cm <sup>3</sup>	ASTM D-638
Viscosity At 25°C	Approx. 500 - 1700 mPa.s	ISO 3219
Mixture		
Viscosity At 25°C	Approx 1000 mPa.s	ISO 3219
Pot life (100 g at 25°C)	Approx. 25 minutes	Test DNT
Full cured Denepox LM		
Hardness	Approx 95 Shore A Approx. 40 – 45 Shore D	ISO 868
Tensile Strength	> 4 N/mm <sup>2</sup>	ISO 527
Elongation At Break	Approx 70 %	ISO 527
Tear Resistance	Approx 24N / mm	ISO 34-1
Adhesion To Dry Concrete Cohesion	Surpasses concrete	ISO 4624
Adhesion To Wet Concrete	> 3 N / mm <sup>2</sup>	JC/T 1041-2007
Minimum Application Temperature	10°C	Test DNT

Full chemical or mechanical resistances are only reached after a curing period of 14 days at 20 °C. Mechanical properties of epoxy resins decrease at temperatures higher than 50 °C.

## **Packaging**

#### 4.2kg set

A-component: Net 2kg metal pail B-component: Net 2.2kg metal pail

42kg set

A-component: Net 20kg metal pail B-component: Net 22kg metal pail

#### Storage

Denepox LM should be stored under cover, clear of the ground in a dry location. Protect from moisture and frost. Shelf life: 2 years.

#### **Accessories**

## To be ordered separately

- IP 1C-Manual hand pump.
- IP 1C-Compact electrical airless diaphragm pump.
- Packers and connectors.
   (Please consult the relevant Technical Data Sheets)

## **Health and Safety**

Denepox LM A-component is classified as irritating. Denepox LM B-component is classified as corrosive. Always wear protective clothing, gloves and protective goggles. For full information, consult the relevant Material Safety Data Sheet.

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