# **Nitofill UR63**



# Solvent free, two part polyurethane resin for sealing cracks

#### Uses

Can be injected into cracks in concrete or masonry in dry or damp conditions to form an elastic seal. Caution must be exercised with cracks which are live or filled with dust, water or salts.

Use with Nitofill WS60 to seal cracks in wet conditions in basements, subways and tunnels.

#### **Advantages**

- Low viscosity : Penetrates fine cracks and cavities.
- Good adhesion: Adheres strongly to dry or moist concrete
- Flexible: Strong but flexible to withstand differential structural movement
- Tough: Withstands high hydrostatic pressures
- Impermeable: On curing it forms a hard mass impermeable to water
- Suitable for use in high temperature conditions.

#### **Description**

Nitofill UR63 is a two part liquid polyurethane. When mixed in the proportion supplied they react to form a tough, slightly flexible resin. Nitofill UR63 has a good adhesion to concrete and masonry and when injected into cracks it allows some movement without loss of bond.

#### **Technical support**

The company proves a technical advisory service supported by a team of specialists in the field

# **Typical properties**

Specific gravity	1.0	
Viscosity at 20°C	3 po	ise
Cure properties ( Tropical grade )		
Temperature	25°C	35°C
Pot life	35 min	20 min
Reaction time	95 min	55 min

# **Application instructions**

#### **Surface preparation**

Care must be taken to provide a clean and sound surface for bonding and injecting.

- 1. Remove heavy deposits of grease and dirt by scrubbing with detergent solution and washing with plenty of clean water to ensure complete removal of the detergent. Dirt alone may be removed with wire brushes or similar mechanical means.
- 2. Remove deteriorated concrete, laitence and paint. The best treatment is grit blasting with sand, steel shot or a proprietary abrasive. Where grit blasting is impracticable, use rotary wire brushes.
- 3. Blow the cracks and treated surfaces with oil free compressed air to ensure complete removal of all dust and loose particles. Ensure that wet surfaces are blown dry.

In the presence of running water, the flow must be stopped by injecting Nitofill WS60 which produces a rapid setting foam. When the flow of water is stopped the cracks are reinjected with Nitofill UR63.

The surface of the crack must be sealed and injection nipples bonded in place before Nitofill UR63 is injected using Nitomorar PE.

# **Mixing of Nitomortar PE**

Add the hardener component to the base components and mix thoroughly until a uniform colour is achieved

## **Application of Nitomortar PE**

Immediately after mixing, apply the compound to the surface cracks. Overlap the cracks on both sides by 15 - 20mm. In general aim to form a band of material 30 -40mm width and 2 - 3 mm thick. Use the material to bond on injection nipples using locating pins to ensure correct sitting. Depending on the width and depth of the cracks the distance between nipples should be 200 to 500mm.

Fit nipples to both sides of a wall that is cracked all the way through, those at the back should be midway between those in front.

Take care not to block the nipple holes with Nitomortar PE.

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## Mixing and application of Nitofill UR63

Application of the injection system may be commenced as soon as the Nitomortar PE has cured ( at least 8 hours at 35°C). This will be extended at lower ambient temperatures. Mix the entire contents of the base and hardener components together until the liquid becomes clear.

The product is applied by standard resin injection equipment. The injection pressure should be at least 0.4 N/mm<sup>2</sup> ( 4 bar ).

#### Making good

Remove the nipples. Make good any holes or voids with more Nitomortar PE and allow to cure. The Nitomortar PE used to seal cracks can then be ground off, or softened with a blow lamp and peeled off. Do not allow to burn.

### Storage

Six months shelf life if stored at 30°C

#### **Packaging**

Usually available in 2kg packs

#### Cleaning

Use Nitoflor Sol

#### **Precautions**

#### Health and safety

Some people are sensitive to resins so gloves and a barrier cream should be used when handling all resins. If contact with the resin occurs, it must be removed, before it hardens, with a resin removing cream. Follow by washing with soap and water. Do not use solvent. The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of water and seek medical treatment immediately. Ensure good ventilation and do not smoke during use.

#### Fire

Nitoflor Sol and Nitofill UR63 are flammable

#### Flash point

Nitoflor Sol 33°C

#### Additional information

Nitofill UR63 is part of a wide range of adhesive, grouts, repair mortars and sealing compounds specifically designed and manufactured by Fosroc for the construction industry.



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