

Rapid foaming and setting resin for stopping flow of water

Uses

Stops the flow of water when injected into cracks in concrete in the presence of moving water. Nitofill WS60 with Nitofill UR63 provides an effective system for crack sealing in wet conditions.

Advantages

- **Seals against water:** Reacts and produces foam resistant to water
- **Rapid acting :** Rapid reaction to produce water stop in presence of flowing water
- **Reinjectable :** Can be reinjected with Nitofill UR63 to produce a permanent seal.

Description

Nitofill WS60 is a two part liquid polyurethane when mixed in the proportions supplied it reacts rapidly with water to form a foam barrier.

Technical support

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

Typical properties

Specific gravity	1.14 ± 0.06
Density of foam	0.025
Viscosity at 20°C	2 - 3 poise
Pot life, in absence of water	
at 20°C	6 - 8 hours
at 30°C	3 - 4 hours
Reaction time with water	5 to 30 seconds dependent upon temperature

Specification clause

Water-stopping crack injection resin

Water-stopping crack injection resin foam shall be Nitofill WS60, a two part foaming liquid polyurethane. When mixed in the proportions supplied and injected into cracks in concrete, the resin shall react with moving water to form a foam water-stopping barrier.

The water-stopping injection resin shall have the following properties; pot life, in the absence of water, 6-8 hrs at 20°C; specific gravity of 1.14 ± 0.06; foam density of 0.025.

When used in conjunction with Nitofill UR63, a flexible two part polyurethane injection resin, it shall form a permanent seal in cracked concrete.

Application Instructions

Surface preparation

Clean area of concrete so cracks are identifiable.

It is recommended to use packers especially when injecting against running water. Other techniques may be used, but are application specific.

Drill holes to suit the specific dimensions of the packers and should be spaced at between 150 to 500mm intervals depending upon the crack width, depth and pressure of water. Angle should be at approximately 45° and bisect the crack in the centre of the concrete where possible. If rebar is struck, stop drilling and move drilling point to adjacent area.

Where possible stagger the injection points either side of the crack.

Insert packers and ensure they are tight to the concrete. If necessary they may be sealed with Nitomortar PE and Renderoc Plug as well.

Mixing & Application

- Thoroughly mix the accelerator with the base resin, taking care to exclude moisture as much as possible. Place in an enclosed container after mixing, there may be a skin formation on the surface but the liquid underneath will be satisfactory for use during the stated pot-life of the product.
- Nitofill WS60 requires the presence of water to react and harden. If there is no water ingress at the time of injection, cracks should be pre-injected with water.
- Nitofill WS60 is suitable for use with all common 1 component application equipment, typically an electric pump will yield the best results when injecting against hydrostatic water pressure.
- Inject Nitofill WS60 along the line of the crack methodically, ensuring that the material is working its way along to the next point. If injecting vertical cracks it is generally advised to begin at the bottom of the crack and work upwards.
- Take care not to over pressurise injection as this may lead to further cracking of the concrete or displacement of packers.
- If material is flowing without resistance, stop and allow material to gel. If material is still flowing consider increasing the amount of accelerator or changing the spacing of injection.

Nitofill WS60

Secondary Injection

- Nitofill WS60 should stop water adequately if cracks are static. However, if further movement is anticipated, it is advised that a secondary injection of Nitofill UR63 is applied.
- Nitofill UR63 may be injected through the same injection ports after initial set has taken place and the contractor is confident running water has been stopped.

Finishing

Once the injection process has finished, remove injection packers and fill with Nitomortar PE and Renderoc Plug or other appropriate Renderoc material. Scrape off any foam residue from the cracks and dispose of appropriately.

Cleaning

Use Nitoflor Sol for all tools and equipments

Storage

Six months shelf life if stored at 20°C

Packaging

Nitofill WS60	1, 5 & 20kg
Nitofill UR63	1, 5 & 20kg
Nitomortar PE	5 L
Nitoflor Sol	5 & 20 L
Renderoc Plug	5 kg

Precautions

Health and safety

Some people are sensitive to resins so gloves and a barrier cream should be used when handling Nitofill WS60. 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

Nitomortar PE and Nitoflor Sol are flammable

Flash point

Nitoflor Sol	33°C
Nitomortar PE resin	29°C

Additional information

Nitofill WS60 is part of a wide range of adhesive, grouts, repair mortars and sealing compounds specifically designed and manufactured by Fosroc for the construction industry.

Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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