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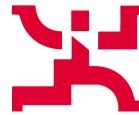
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Fosroc® Nitofill WS60

Rigid foaming two part polyurethane injection resin

Uses

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

Advantages

- Seals against water: reacts and produces foam resistant to water
- Penetrates deep in fine cracks
- Reacts with water and swells exerting pressure on the substrate sealing against water penetration
- Free expansion: 1700% - 2200 %
- Does not shrink after curing
- Excellent adhesion to mineral construction materials (such as concrete, cement and brick and metal)
- The reaction speed can be controlled by varying the amount of hardener
- Nitofill WS60 foam is chemically resistant against water, weak acids, and alkali, mineral oils, fungus and bacteria, ground water, sea water and petroleum products.

Description

Nitofill WS60 is a two part liquid; it reacts when mixed with water to form a rigid, polyurethane foam barrier. Because of the low viscosity and the expansion during polymerisation the resin will penetrate deep into the crack.

Typical Properties

Colour:	Dark brown
Free expansion:	1700 - 2200 %
Density	
Base :	1.1 - 1.2 kg / l
Hardener :	0.947 kg / l
Viscosity at 25°C	
Base :	111 mPas
Hardener :	8 mPas

Reaction time with water: 65 g resin + hardener + 20 g water

	Hardener	Start reaction (sec)	End reaction (min & sec)
10°C	2 %	55"	4'18"
	6 %	26"	1'38"
	9%	20"	1'10"
15°C	2%	46"	4'06"
	6%	21"	1'34"
	9%	18"	1'15"
20°C	2%	44"	3'30"
	6%	19"	1'17"
	9%	13"	54"
25°C	2%	38"	3'15"
	6%	18"	1'16"
	9%	12"	51"

Preparation

Ensure all contact surfaces are free from oil or grease contamination, and suitably prepared to allow the Nitokit Surface Sealant to bond.

Injection packers should be inserted into holes drilled at a 45 degree angle to the surface such that they intersect the crack. The distance between each packer is typically between 200 mm and 500 mm depending on on the width of crack, depth of crack and degree of water penetration / water pressure.

Nitokit Surface Sealant

This is a polyester resin compound used to seal the front surface of the crack. For through cracks in slabs and walls, both sides of the crack may be sealed.

It is supplied as a liquid resin together with a powder hardener, which are mixed together to give a stiff paste.

Nitokit Surface Sealant has the added advantage that it can be rubbed down with suitable hand or power tools to give a smooth finish which readily blends with surrounding concrete, minimising the visual impact of the repaired crack.

Mix only the quantity of sealant that can be applied within the usable life. Pour a small quantity of the resin into a suitable bucket and slowly add the powder. Stir until a smooth thick cream consistency is obtained. Mix further quantities as required.

The usable life of the product is 20 to 25 minutes at 20°C.

Allow to cure for at least 2 hours at 20°C (4 hours at 10°C) before commencing injection.

Note, Nitokit Surface Sealant should not be used to seal cracks where running water is present.

Fosroc® Nitofill WS60

Injection

Before commencing ensure the first packer to be injected has its non-return valve fitted. All other packers should be open. Note for vertical applications, normally the lowest packer is injected first.

Pre-weigh required quantities of Nitofill WS60 resin and hardener. Mix together thoroughly using a drill and paddle. Mix only the amount which can be used within the pot life.

Pour the mixed material into the hopper of the injection equipment being used. Connect the outlet hose to the first injection packer and activate the pump.

When resin or foam is seen coming from the next injection packer, deactivate the pump immediately and install a non-return valve onto the next packer. Move the injection hose to the next packer and repeat until the entire crack is sealed.

Limitations

Nitofill WS60 is only suitable for filling static cracks, where a more flexible foam is required consider Nitofill UR63.

At high water pressures on wide cracks Nitofill WS60 may not be capable of stopping water, Contact Fosroc for more information.

If no water is present in the structure use lowest hardener level and add 1 part water to 4 part resin to the resin component prior to mixing. It is advisable to use disposable cartridges when adding water to avoid obstructing pump equipment and pipes.

Cleaning

Tools and application equipment should be cleaned immediately after use using a proprietary polyurethane cleaner for Nitofill WS60 and Fosroc Solvent 105 for Nitokit Surface Sealant. Once cured material can only be removed mechanically. Spillages should be absorbed with sand or sawdust and disposed of in accordance with local regulations.

Clean pump and manual equipment every time there is a stop of more than 15 minutes with a proprietary cleaner, or whenever necessary and at the end of the injection. Flush with an extra 1/4 litre of cleaner.

Storage

Six months shelf life if stored at 10°C - 30°C in unopened containers.

Packaging

Nitofill WS60 Resin	25 kg pack
Nitofill WS60 hardener	2.3 kg pack
Nitokit Surface Sealant	5.5 ltr
Fosroc Solvent 105	5 ltr

Precautions

Health and safety

For further information refer to appropriate Product Safety Data Sheet, available at www.fosroc.com.

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