

Fosroc® Nitodek FS Repair Mortar



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constructive solutions

A two component resin mortar for concrete repairs and screeds

Uses

The Nitodek FS system is a hybrid fast curing trafficable waterproofing system that combines MMA Technology with polyurethanes to produce a slip resistant solution that is both hard wearing and flexible suitable for balconies, car park decks, ramps and turning circles. Bespoke systems can be produced from the suite of system products to suit specific situations and performance requirements. Nitodek FS Repair Mortar is used specifically for patch repairs. It can be used on floors with industrial traffic that are subject to heavy mechanical stress. Nitodek FS Repair Mortar can also be used as a localised repair mortar for internal and external applications.

Advantages

- Rapid cure and reinstatement
- High strength
- Wear-resistant
- Low shrinkage
- Ease of mixing and application

Description

Nitodek FS Repair Mortar is a two component, solvent-free, methacrylic resin mortar with a high compressive and flexural strength. It is characterised by very low linear shrinkage. The very low viscosity enables rapid mixing and application. The finished mortar surface resembles that of a fine exposed concrete and can be topped with compatible Fosroc coatings to give a decorative surface appearance. The hardening time is about 1-3 hours over a temperature range of -10°C to +35°C

Properties

Typical properties at 20°C unless otherwise noted:

Nitodek FS Repair Mortar Resin

Viscosity	0.6 - 0.7 mPa•s
Density	0.93 g/cm ³

Nitodek FS Repair Mortar

Pot life (100pbw resin + 2pbw hardening powder)	Approx. 15 min
Density	2.15 g/cm ³
Compressive strength	75.0 N/mm ²
Flexural strength	27.5 N/mm ²

Application

Nitodek FS Repair Mortar is part of the Nitodek FS system for car park decks, turning circles and ramps.

Surface preparation

Nitodek FS Repair Mortar is applied over Nitodek FS Primer. The primer must be dry and free from contamination.

Substrate

Preparation of the concrete substrate takes place prior to the application of the Nitodek FS Primer. Consult the Nitodek FS Primer technical data sheet for substrate requirements and preparation.

For steel and other substrates contact the Fosroc Technical Help Desk

Treatment of cracks/joints/day-joints/up-stands

Consult Fosroc Technical Help Desk for details of treatment.

Application Temperature

Normal application temperature range is 5 - 30°C. For application temperatures <5°C or >30°C please contact the Fosroc Technical Help Desk.

Special areas of use are industrial trafficked areas which are subject to heavy mechanical stress, also as a localised repair mortar for indoors and outdoors. Greater coat thicknesses can be achieved by adding further coarse aggregates (e.g. for ramps, rail bedding, filler and screed mortars, casting bridge bearings). Suitable coarse aggregates include non-absorbent mineral particles (e. g. quartz gravel) in the proportions listed in the table below.

Application of Nitodek FS Repair Mortar

Nitodek FS Repair Mortar consists of Nitodek FS Repair Mortar Powder and the methacrylic-based Nitodek FS Repair Mortar Resin.

The recommended primer for cement substrates is Nitodek FS Primer scattered with Nitodek FS Anti-Slip Grains.

The mixing ratio is 15 kg (1 sack) of Nitodek FS Repair Mortar Powder and 2 litres of Nitodek RS Repair Mortar Resin.

The consumption of a basic mortar mix is 2 kg/m² per mm of coat thickness.

Under no circumstances should unapproved materials be added to the mix.

The coating thickness of 6 mm must be observed. On repairs where the edge runs out to zero, step cuts to 6mm depth must be made (feathered edges will result in reduced strength and curing problems).

Mixing

To produce the mortar mix, 1.7 - 2.2 litres of Nitodek FS Repair Mortar Resin (exact quantity depends on the desired mortar

Fosroc® Nitodek FS Repair Mortar

consistency) is added to the Nitodek FS Repair Mortar Powder. Because of its thin consistency, the mix can be easily and quickly prepared using high-speed drill and paddle; smaller quantities can be prepared manually.

The finished mortar is applied by means of a trowel and smoothed to a tight surface finish.

The pot life at normal temperatures is about 12–14 minutes, the curing time about 60–90 minutes. The values indicated will vary according to the ambient / substrate temperature.

Mixes with coarse aggregates can also be produced using a forced action mixer. Ensure that the coarse particles are not added until the Nitodek FS Repair Mortar Powder and Nitodek FS Repair Mortar Resin have already been mixed together. Contact the Fosroc Technical Help Desk for advice.

If mortar surfaces made from Nitodek FS Repair Mortar are to be coated with methacrylic resin systems, a further coat of Nitodek FS Primer must be applied first to the mortar.

Special Colour:

The standard Nitodek FS Resin Mortar is a medium grey colour (approx RAL 7030). If minimum quantities are purchased, special shades are available on request.

Cleaning

Tools and equipment can be cleaned immediately after use with Nitodek FS Solvent. Hardened material must be removed mechanically.

Estimating

Refer to your local Fosroc office regarding estimation of product quantities and dosage rates.

Supply

Nitodek FS Repair Mortar

17 kg Kit	2L Resin + 15kg Filler
51 kg Kit	6L Resin + 15kg Filler x3
421 kg Kit	25L Resin x2 +15kg Filler x25
1517 kg Kit	180L Resin +15kg Filler x90
7587 kg Kit	900L Resin + 15kg Filler x450

Yield

Nitodek FS Repair Mortar	Volume (litres)
17kg kit	8.50
51kg kit	25.50
398kg kit	212.00
1517kg kit	765.00
7587kg kit	3827.00

Limitations

Nitodek FS Repair Mortar should not be used below 5°C. Use in a well-ventilated area. Do not apply to wet or damp surfaces. If in any doubt concerning substrate condition or temperature consult the local Fosroc office.

Storage

Store in in dry conditions away from sources of heat and naked flames. All products have a shelf life of 6 months if stored in the unopened original container in a cool (< 25 °C), dry and frost-free location. The optimal storage temperature is +15°C to +20 °C.

Do not expose to direct sunlight!

Precautions

Health and safety

For further information refer to the appropriate Product Safety Data Sheet available from www.fosroc.com

Fire

Nitodek FS Repair Mortar Resin is flammable. Keep away from sources of ignition. No smoking. In the event of fire extinguish with foam or CO₂. Do not use water jet.

Flash point	+10 °C
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