

## A two component highly flexible membrane resin for Nitodek FS systems

### 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 Membrane is a modified methacrylate resin of high flexibility suitable for waterproofing of interior and exterior concrete surfaces. It provides a barrier on floor and wall surfaces that are subject to water ingress, spillage, leaks or cleaning.

### Advantages

- Fast setting allows for quick over-coating
- Highly elastomeric for excellent crack-bridging performance
- Seamless
- Easy to apply
- Solvent free

### Description

Nitodek FS Membrane Resin is pigmented to a beige colour to allow the applicator to ensure no gaps are left in coverage. The product cures to a permanently flexible finish which is highly tolerant of thermal movement in concrete.

### Properties

#### Typical properties at 20°C unless otherwise noted:

|  |                        |
|--|------------------------|
| Viscosity                                | 300 - 500 mPa·s        |
| Density                                  | 0.99 g/cm <sup>3</sup> |
| Pot life<br>100pbw resin + 2pbw hardener | Approx 12 - 15 min     |

### Guideline recipe and mix quantities

| Item | Component                 | Guideline recipe (% by weight) | Comments  | Batch for 30 litre bucket                |
|------|---------------------------|--------------------------------|---|--|
| 1    | Nitodek FS Membrane Resin | 100%                           |   | 10 kg                                    |
| 2    | Nitodek FS Hardener       | 2-6%                           | See "Hardener dosages" table for quantities         | 200 - 600g                               |
|      | <b>Total:</b>             | <b>100%</b>                    | <b>Average consumption:</b><br>1.2kg/m <sup>2</sup> | <b>Approx. 10 kg (approx. 8.5litres)</b> |

The mixing device (dissolver) must be ATEX approved. Stir moderately to avoid over-heating during the process (max. +30 °C).

## Application

### Surface preparation

Nitodek FS Membrane 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 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 Fosroc Technical Help Desk.

### Application of Fosroc Nitodek FS Membrane

Nitodek FS Membrane should be mixed according to the advice given in Table 1 (overleaf). Depending on the skill and experience of the user different application tools can be used eg. Mohair-rollers, comb trowel or smooth trowel.

Apply Nitodek FS Membrane at 1.0-1.5mm coating, avoiding formation of blisters during application. Where appropriate continue applying the material up walls, columns or fixed machineries by at least 15cm to maintain water-tightness.

When used in systems with Nitodek FS Fleece, apply the 1st coat of Nitodek FS Membrane using a trowel or similar. While the membrane is still wet lay the fleece (overlapping the fleece edges by 5cm minimum).

# Fosroc® Nitodek FS Membrane

Ensure the fleece is fully saturated

Apply the 2nd coat of membrane (while the 1st coat is still wet) to fully encapsulate the fleece, but avoiding air pockets; allow the membrane to harden (approximately 45 minutes at 20°C).

The total thickness of the waterproofing membrane with fleece will be approx. 2.0–2.5 mm.

## Hardener dosages\*

| Temperature | Hardening powder % (of resin) | Pot life approx. min. | Hardening time approx. min. |
|-------------|-------------------------------|-----------------------|-----------------------------|
| 0 °C        | 6.0                           | 21                    | 80                          |
| +5 °C       | 5.0                           | 20                    | 60                          |
| +10 °C      | 4.0                           | 15                    | 40                          |
| +15 °C      | 3.0                           | 15                    | 40                          |
| +20 °C      | 2.0                           | 15                    | 40                          |
| +25 °C      | 1.5                           | 10                    | 30                          |
| +30 °C      | 1.0                           | 8                     | 25                          |

\* The quantity of hardener is calculated as a % of the weight of resin to be used.

For further Hardener information, please refer to the separate product information sheet "Nitodek FS Hardener Powder".

## Limitations

Nitodek FS Membrane 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.

## Supply

|                             |                                      |
|-----------------------------|--------------------------------------|
| Nitodek FS Membrane Resin : | 25kg pail<br>180kg drum<br>900kg IBC |
| Nitodek FS Hardener:        | 25kg carton                          |

## Cleaning

Tools and equipment can be cleaned immediately after use with Nitodek FS Solvent.

## Estimating

Refer to your local Fosroc office regarding estimation of Nitodek FS Systems quantities and dosage rates.

## Yield

25kg of Nitodek FS Membrane, applied at 1.2kg/m<sup>2</sup>, (1mm thickness) will cover approximately 21m<sup>2</sup>.

## Storage

Store 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](http://www.fosroc.com)

### Fire

Nitodek FS Membrane Resin is flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with foam or CO<sub>2</sub>. Do not use water jet.

### Flash point

(DIN 51 755) +10 °C

Nitodek and Fosroc are trade marks of Fosroc International Limited



### Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of 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 of information given by it.

## Fosroc Limited

Drayton Manor Business Park  
Coleshill Road, Tamworth,  
Staffordshire B78 3XN. UK

[www.fosroc.com](http://www.fosroc.com)

telephone:  
+44 0 (1827) 262222

fax:  
+44 0 (1827) 262444

email:  
[enquiryuk@fosroc.com](mailto:enquiryuk@fosroc.com)



Certificate number FM 610

## A one component polyester fabric

### 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 Fleece is used for reinforcement usually with Nitodek FS Membrane.

### Advantages

- Easy to apply
- Good crack bridging properties

### Description

Nitodek FS Fleece is a high performance polyester fabric with high strength and good stretch characteristics.

### Properties

#### Typical properties at 20°C unless otherwise noted:

|                       |      |
|-----------------------|------|
| Weight/m <sup>2</sup> | 100g |
| Breaking load         | 79kg |
| Tensile strength      | 7kg  |
| Elongation            | 64%  |

### Application

Surface preparation and primer application is as outlined in the Nitodek FS Primer data sheet. Allow the primer to fully cure.

Apply the first coat of Nitodek FS Membrane using a roller or similar.

While the first coat of membrane is still wet, lay the fleece immediately into the wet resin, overlapping the fleece edges by 5cm minimum; ensure the fleece is fully saturated.

To avoid delamination, bubbles or curing problems in the Nitodek FS system, it is very important that the fabric is used in a wet-on-wet application. The aim is to ensure that the fabric is fully saturated with the surrounding resin material. This can be best achieved by using approximately 1.2 to 1.5kg/m<sup>2</sup> of the second coat of resin membrane. The resin is placed evenly

onto the fleece surface with a roller - at least 5cm wider than the fleece width.

Apply the second coat of membrane, while the first coat is still wet, to fully encapsulate the fleece, but avoiding air pockets; allow the second coat of membrane to harden (approximately 45 minutes at 20°C).

After fully curing (1-2 hours) continue with the system application as outlined in the Nitodek FS Method Statement.

### Application Temperature

Normal application temperature range is 5 - 30°C. All materials must be stored at 15 - 25°C for a minimum of 48 hours immediately prior to use. For application temperatures <5°C or >30°C please contact the Fosroc Technical Help Desk.

### Supply

|                   |                |       |
|-------------------|----------------|-------|
| Nitodek FS Fleece | 0.2mx100m roll | 2.4kg |
| Nitodek FS Fleece | 0.5mx100m roll | 6kg   |
| Nitodek FS Fleece | 1.0mx100m roll | 12kg  |

### Estimating

Allow for a minimum 5cm overlap with adjacent rolls when estimating.

### Limitations

Do not allow trapped air / blister to form.

### Storage

Store the Nitodek FS Fleece in clean dry conditions. Shelf life is 2 years.

### Precautions

Use gloves when handling

### Health and safety

For further information refer to the appropriate Product Safety Data Sheet available from [www.fosroc.com](http://www.fosroc.com).

Fosroc and Nitodek are the trademarks of Fosroc International Limited



#### Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of 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 of information given by it.

## Fosroc Limited

Drayton Manor Business Park  
Coleshill Road, Tamworth,  
Staffordshire B78 3XN. UK

[www.fosroc.com](http://www.fosroc.com)

telephone:  
+44 0 (1827) 262222

fax:  
+44 0 (1827) 262444

email:  
[enquiryuk@fosroc.com](mailto:enquiryuk@fosroc.com)



Certificate number FM 610