



Nitoflor® Uragard SL (Formerly Uragard SL)

Heavy duty polyurethane based flow applied, 6mm thick floor topping

Uses

Nitoflor Uragard SL is designed for application as a self levelling floor for concrete and other substrates. This system offers high resistance against impact, thermal shock, abrasion and chemicals.

Resistance to several organic chemicals used in the food industry makes the system suitable for use in various food processing industries. Nitoflor Uragard SL is ideal for use in:

- Freezer rooms
- Refrigerated stores
- Meat, poultry and fish processing plants
- Bakeries & confectionery industries
- Pharmaceutical industries
- Textile manufacturing areas

Advantages

- Excellent mechanical properties
- High impact and abrasion resistance
- Resistant to thermal shock
- Resistant to intermittent live steam or hot water cleaning
- Good resistance to a wide range of chemicals
- Unaffected by freeze/thaw cycles

Description

Nitoflor Uragard SL is a polyurethane based self levelling system designed for application depth of 6mm or greater. The system is formulated specifically to withstand thermal shocks, freeze/thaw cycles and chemical attack. The product is supplied as a four-component system (including colour pack), pre-weighed for on-site mixing. Standard colours include brick red, grey and mid green.

Properties

The values given below are typical figures achieved in laboratory tests.

Compressive strength (BS 6319) part 2, 1983	:	80 N/mm ²
Flexural strength (BS 6319) part 3, 1990	:	30 N/mm ²
Tensile strength (BS 6319) part 7, 1985	:	16 N/mm ²
Impact resistance (BS 8204)	:	No visible damage or deterioration
Resistance to fungal growth (ASTM G21)	:	Passes
Resistance to elevated temperatures (95°C) MIL-D-3134	:	No flow, softening, chalking or cracking

	20°C	35°C
Pot life	: 120 minutes	70 minutes
Initial hardness	: 20 hours	12 hours
Full cure	: 7 days	4 days

Chemical resistance

Nitoflor Uragard SL will resist spillage of the following chemical solutions at 25°C:

Inorganic

Sodium Hydroxide 40%, Sodium Chloride (sat.)
Chlorine Water

Organics

Glucose syrup (sat.), Sugar solution (sat.),
Citric acid (10%), Tartaric acid (10%),
Nicotinic acid (10%)

Alcoholic beverages

Wine, Brandy, Beer

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Carbonated beverages

Pepsi / Coca Cola, Mirinda / Fanta, 7 UP / Team

Electrochemical solutions

Copper Sulphate 1M

Zinc Sulphate 1M

Fruit juices

Grape juice, Orange juice, Fruit cocktail, Apple juice

Mango juice, Pineapple juice, Lemon juice

Fats

Vegetable Oil, Cheese, Butter

Sea Food

Fish (varieties), Prawns (varieties), Fish liquid, Fish blood

Processed fish oil

Poultry

Chicken, Egg (yolk + white)

Meat

Beef, Sheep blood

Fuels

Petrol, Diesel, Engine oil, Hydraulic oil, Brake fluid

Coolant

Cleaning Aids

Dishwashing liquid, Clorox, Jiff, Commercial detergents

Note: The local Fosroc office should be consulted for additional chemicals, different concentrations or operating temperatures greater than 25°C.

All the above properties have been determined by laboratory controlled tests and success in use will be determined by the implementation of good housekeeping practices.

Instructions for use

Surface Preparation

The long term durability of any resin floor system is determined by the adhesive bond achieved between the flooring material and the substrate. It is most important therefore that substrates are correctly prepared prior to application.

Any damaged areas or surface irregularities should be repaired using one of the Nitoflor EU** range of products.

Nitoflor Uragard SL should be applied by specialist contractors who must follow the procedures laid down in the Product Application Guide. Fosroc works with a network of such applicators who have been trained in the correct installation procedures. The following steps are involved in the application which would normally take place over a 2 to 3 day period.

- Thoroughly prepare the floor surface. Correct surface preparation helps to achieve the necessary adhesive bond between the substrate and the new floor.
- All existing expansion or movement joints should be followed through the new floor surface. Joints should be cleaned and prepared.
- Apply Nitocote Primer Sealer and allow to cure for 12 hours at 20°C or 8 hours at 35°C.
- Apply the Nitoflor Uragard SL topping. The material is poured on to the primed surface and spread with a notched steel trowel to achieve a 6 mm seamless topping.
- Using a spiked roller, remove air entrainment and allow to cure.
- Install the most appropriate Fosroc joint sealant. This will depend on the anticipated movement accommodation factor and the end use of the new floor. For further advice, consult the local Fosroc office.

Steel surfaces

Steel surfaces should be degreased and grit blasted to SA2½ immediately prior to application. Clean steel surfaces should be primed with Nitoprime Primer Sealer prior to the application of Nitoflor Uragard SL.

Cleaning

Nitocote Primer Sealer and Nitoflor Uragard SL should be removed from tools and equipment with Nitoflor Sol immediately after use. Hardened material can only be removed mechanically.



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Maintenance

The service life of a floor can be considerably extended by good housekeeping. Regular cleaning may be carried out using a rotary scrubbing machine with a water miscible cleaning agent at temperatures up to 100°C.

Limitations

- Nitoflor Uragard SL should not be applied on to surfaces which are known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A or Thermohygrometer.
- Fosroc does not recommend acid etching as a method of floor preparation. If used, the method should be approved by the project consultant.
- Nitoflor Uragard SL should not be applied to asphalt, weak or friable concrete, unmodified sand/cement screeds, PVC tiles or sheet.
- Nitoflor Uragard SL should not be installed at temperatures below 10°C or above 35°C. Not suitable for use at temperatures below -5°C.
- Nitoflor Uragard SL is subject to colour change when in contact with oxidising acids.

Technical support

Fosroc offers a comprehensive range of high performance, high quality flooring, jointing and repair products for both new and existing floor surfaces. In addition, the company offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the world.

Estimating

Supply

Nitoflor Uragard SL	:	15 litre packs
Nitocote Primer Sealer	:	1 and 4 litre packs
Nitoflor Sol	:	5 litre can

Coverage

Nitoflor Uragard SL	:	2.5 m ² @ 6 mm thickness
Nitocote Primer Sealer	:	4 - 5 m ² /litre

Note: The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced. Typically an additional 10% should be allowed for surface irregularities and wastage although this will vary with site conditions.

Storage

Shelf life

All products have a shelf life of 12 months if kept in a dry store in the original, unopened packs.

Storage conditions

Store in dry conditions between 5°C and 30°C, away from sources of heat and naked flames, in the original, unopened packs. If stored at high temperatures the shelf life will be reduced.

Disposal

Spillages of component products should be absorbed onto earth, sand or other inert material and transferred to a suitable vessel. Disposal of such spillages or empty packaging should be in accordance with local waste disposal regulations.

For further information, refer to the Product Material Safety Data Sheet.

Precautions

Health and safety

Nitoflor Uragard SL, Nitocote Primer Sealer and Nitoflor Sol should not come into contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Some people are sensitive to resins, hardeners and solvents.

Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used.

The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.



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Fire

Nitoflor Uragard SL and Nitocote Primer Sealer are non-flammable.

Nitoflor Sol is flammable. Keep away from sources of ignition. No smoking. In the event of fire extinguish with CO₂ or foam. Do not use a water jet.

Flash points

Nitoflor Sol	:	33°C
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Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc office - as below.

† See separate data sheet

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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.

telephone

++91 80-22240018/120

fax

++91 80-22233474

e-mail

india@fosroc.com

Regional Offices



Fosroc Chemicals (India) Pvt. Ltd.

Head Office

111/3, Hafeeza Chamber II Floor,
K H Road, PBNo. 2744, Bangalore 560027

www.fosroc.com

Bangalore

Shankar House, IV Floor
1 & 18, RMV Extension
Bangalore 560 080
Ph:080-2361 3161/2361 2004
Fax : 080-2361 7454
email: Bangalore@fosroc.com

Mumbai

208/209, Persepolis
Sector 17, Vashi
Navi Mumbai 400 703
Ph:022-2789 6412/14
Fax: 022 - 2789 6413
email:Mumbai@fosroc.com

Delhi

First floor, 1/2 East Patel Nagar
Opp: Vivek Cinema, Main Patel Rd
New Delhi 110 008
Ph:011-25884903/4
Fax: 011- 25884422
email:Delhi@fosroc.com

Kolkata

30/B Jodhpur Park
Ground Floor
Kolkata 700 068
Ph: 033 2472 5482
Fax: 033-2472 9921
email:Kolkata@fosroc.com

●Ahmedabad : (079) 26762799 ●Ankleshwar : (02646) 220704/224687 ●Bhubaneswar : (0674) 2521176 ●Chennai (044) 24899949/24853383
●Chandigarh : (0172) 2639360 ●Cochin : (0484) 2356668 ●Coimbatore : (0422) 2472966 ●Goa : (0832) 2542465 ●Guwahati (0361) 2548793
●Hyderabad : (040) 27662324/27662425 ●Hubli (0836) 3402597 ●Indore : (0731) 504339/5061477 ●Jaipur : (0141) 2235349 ●Lucknow : (0522)
22239044 ●Nagercoil (04652) 2224849 ●Mangalore: (0824) 22272234 ●Visakhapatnam : (0891) 2564850

INDIA/2004/0679/A

