

Trowel applied polyurethane coving mortar

Description

Nitoflor Coving U is a three-component trowel applied coving mortar.

Typical application areas include food and beverage production, dairy processing, pharmaceutical, heavy duty traffic and engineering process areas.

Appearance

Matt surface with a lightly coloured finish

Advantages

- Easy to clean
- Non tainting
- Seamless
- High abrasion resistance

Thickness

6 – 9 mm

Non Taint

Nitoflor Coving U is water based and non tainting.

Substrates

Concrete, polymer modified screeds, grano concrete.

Chemical Resistance

Nitoflor Coving U is resistant to a wide range of commonly used chemicals in the food, dairy and pharmaceutical industries such as concentrated citric acid (fruits), spirit vinegar (50% acetic acid), lactic acid (food & dairy products) and common alcohols (methanol & ethanol). Nitoflor Coving U is also resistant to a wide range of inorganic acids, fuels, hydraulic oils, mineral oils and solvents. Good housekeeping practices should be employed. Please consult Fosroc for further advice. Some staining or discolouration may occur with some chemicals, depending on dwell time, temperature, type of chemical and degree of housekeeping employed. This does not affect the product service integrity or durability. For maximum chemical resistance Fosroc Nitoflor Coving U should be coated with Fosroc Nitoflor HB300 U when cured.

Typical Properties, 28 days at 20°C

BS 8204-6	FeRFA Type 8
Compressive strength (BS6319)	> 50 MPa
Tensile strength (BS6319)	> 4 MPa
Adhesive strength to concrete (BSEN1504-2)	>1.5MPa

The typical physical properties given above are derived from testing in controlled laboratory environment. Results derived from testing field-applied samples may vary, dependent on actual site conditions

Working life of full packs *:

Nitoprime UR2	20-30 minutes
Nitoflor Coving U	15 minutes

* Usable working life of material following mixing and immediate spreading as per the application instructions

Finished floor:

Cure time to light pedestrian traffic 8 hours
 Cure time to light wheeled traffic 24 hours
 Cure time to medium duty traffic 48 hours
 Full chemical resistance 7 days

Note: The above cure times are approximate and given as a guide only. These times can vary due to prevailing site conditions.

Application Conditions

Ideal ambient and substrate temperature range is 15-25°C to achieve best results. Localised heating or cooling equipment may be required outside this range, to achieve the ideal temperature condition. The product can be applied outside this ideal temperature range (subject to a minimum of 5°C and maximum of 35°C) but this can be expected to have a negative effect on surface finish. The aggregate can be stored in a cool area (or warm area in the case of low ambient temperature) in order to control product temperature and working life.

The substrate and uncured floor must be kept at least 3°C above the dew point to reduce the risk of condensation or blooming on the surface, from before priming to at least 48 hours after application of Nitoflor Coving U.

Surface Preparation

Inadequate preparation will lead to loss of adhesion and failure. In coatings or flow-applied systems, there is a tendency for the finish to mirror imperfections in the substrate. Grinding or light vacuum-contained shot-blasting is therefore preferred over planning for these systems. Percussive scabbling or acid etching is not recommended

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New concrete floors

The base should be a minimum of Grade RC30 of BS 8500-2: 2002 and should not contain a water repellent admixture. The surface strength when assessed using a rebound hammer should be above 25 or the surface tensile strength should exceed 1.5 MPa.

The laitance and any surface sealer or curing membrane should be removed by mechanical means such as shotblasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment.

For concrete bases in contact with the ground, a damp-proof membrane should have been incorporated into the slab design, in accordance with the requirements of CP102 (Code Of Practice For Protection Of Buildings Against Water From The Ground).

Old concrete floors

All laitance and surface contamination, e.g. oil, paint and rubber, should be removed by mechanical means such as shot-blasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment. Heavy oil or grease deposits should first be removed either mechanically, by steam cleaning, or by biological treatment, then by high pressure water blasting followed by the application of a penetrating primer. Where oil or grease contamination has been severe or of long duration, none of these methods may prove satisfactory and in these cases removal of the affected base would be necessary.

In existing buildings without a functioning damp-proof membrane, the application of a surface-applied membrane should be considered. Hydrostatic pressure may, under certain circumstances, cause adhesive failure between the flooring and the substrate. Where this is likely to occur, such as in areas where the ground water table is higher than the substrate, and where external tanking has not been applied, pressure relief must be provided e.g. by direct drainage.

A close visual examination should be made to verify cleanliness and soundness. Any weak or suspect areas should be repaired.

Application Instructions

Priming

Priming should be carried out using Nitoprime UR2, three component primer. Apply Nitoprime UR2 at the required rate depending on the texture and porosity of the substrate. See Coverage.

Pour and drain the full contents of the hardener container into the base container and mix thoroughly with a slow speed electric stirrer fitted with an appropriate paddle, for a minimum of 3 minutes until homogeneous. Apply onto the substrate with a paint brush, until the surface is completely wetted out. If after soaking in, there are dry patches, a further primer coat is required. Nitoflor Coving U should be applied onto tacky primer. Maximum over coating time at 20°C is 48 hours. If the primer has been left to cure to a non-tacky state, a further primer coat is required. If the primer has been allowed to cure for >48 hours then the primer should be removed and the area reprimed. Contact your local Fosroc office for advice

Application of Nitoflor Coving U

Pre-mixing of the coloured liquid base component is essential to ensure any light settlement is reincorporated. Thoroughly drain the contents of the hardener component into the coloured base component and mix for a minimum of 1 minute or to provide a homogeneous mix. The resultant mixture should then be loaded into a rotary drum mixer and the aggregate component loaded and mixed in stages, then mix for three minutes or until a lump-free mix is obtained.

Apply to primed areas while the primer is still in tacky state, and finish using a steel float and coving trowel

Supply

Nitoprime UR2	:	2.1 kg packs
Nitoflor Coving U	:	16.8 kg packs

Coverage

Nitoprime UR2	:	150 m ² per 2.1kg pack (6m ² -13m ² per 201 kg pack dependent on substrate profile and porosity
Nitoflor Coving U	:	1.8 - 2.5m ² /mm thickness

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Colours

Fosroc Nitoflor Coving U is available in a range of standard Fosroc colours. Fosroc Nitoflor Coving U is not colour fast and may yellow over time. The rate of change will depend on UV light and heat levels and cannot be predicted. This will be more pronounced with lighter colours and blue shades and does not compromise the product's performance or chemical resistance characteristics.

Being further a dry product, Nitoflor coving U does not exhibit the same degree of colour strength as other Fosroc Nitoflor Coving U can be greatly enhanced by applying one or two coats of Fosroc Nitoflor HB300U

Cleaning

Regular cleaning is essential to enhance and maintain the life expectancy, slip resistance and appearance of the floor. Fosroc Nitoflor Coving U can be easily cleaned using industry standard cleaning chemicals and techniques.

Consult your cleaning chemical and techniques. Consult your cleaning chemical and equipment supplier for more information.

Health and safety

Fosroc Nitoprime UR2 and Nitoflor Coving U should not come into contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours.

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 provides 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. Refer to Product Safety Data Sheets for further information

Fire

Fosroc Nitoprime UR2 and Fosroc Nitoflor Coving U are non-flammable.

Storage, Mixing & Application

Fosroc Nitoprime UR2 and Fosroc Nitoflor Coving U have a shelf life of 12 months if stored in unopened packs in a dry store under cover at temperature between 10°C and 30°C. Storage outside this range, or repeated fluctuations in storage temperature can reduce the storage life. Protect from frost.

Limitations

Do not proceed with application if atmospheric relative humidity is, or is anticipated to be, >90% or if the surface temperature is <3°C above the dew point.

Application should not commence when the substrate temperature or the ambient temperature is, or is anticipated to be, <5°C during the application or within the tack-free period. The design strength of concrete surfaces must be a minimum of 25 MPa compressive strength at 28 days.

The manufacture of Fosroc Nitoflor Coving U is a batch process and despite close manufacturing tolerances, colour variation may occur between batches.

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Technical advice

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