Fosroc®
Nitotile® Plus

Flexible, light weight cement based white tile adhesive for use with Nitoproof liquid applied membrane systems

Uses

Nitotile Plus can be used both internally and externally on walls and floors. It can be used to bond a variety of different tiles to a variety of different substrates.

Advantages

- Internal / external on wall and floor surfaces
- Withstands movement in the substrate.
- Fast setting, grouting can commence 8-16 hours @ 20°C after completion of tiling.

Standards Compliance

Nitotile Plus meets the performance requirement of C2S2TE

Description

Nitotile Plus is a premium grade, modified, flexible cement based white tile adhesive. It is designed for bonding most types of ceramic, stone and mosaic tiles with the exception of moisture sensitive stone like marble, onto a variety of substrates like concrete, render, rendered brickwork, block work, Gyprock, plasterboard and fibre cement surfaces. Nitotile Plus can also be used to fix tiles over most Nitoproof water based waterproofing membranes.

Properties

Appearance:	White powder
Specific gravity:	1.4kg / litre
Open Time:	Approx 25 minutes @ 20°C
Pot-life:	60 minutes @ 20°C
Time to grouting :	8 to 16 hours @ 20°C
Time to accept light foot traffic :	24 hours @ 20°C
Ready for wet area service:	min. 24 hours @ 20°C
Tensile Adhesion Strength (AS13007.1):	1.7MPa @ 28 days
VOC content:	<1g / litre

Application Instructions

Preparation

All concrete slabs must be allowed to cure for at least 7 days and have a wood float finish. All rendered surfaces must be allowed to cure for at least 24 hours prior to commencing tiling.

The maximum variation in the plane of the concrete must not exceed 5mm in 3 metres for floors and 4mm in 2 metres for walls.

Steel Trowelled or smooth dense concrete should be mechanically abraded.

Ensure all surfaces are sound, dry and free from excessive movement, paint, oil, grease, wax, curing compounds, release agents and any other loose materials.

When using Nitotile Plus directly to porous concrete, surfaces should be primed with Nitoprime 120 (applied at 6 - 8m² per litre) to ensure a sound bond of the adhesive to the substrate.

Fibre cement sheet must be a minimum thickness of 6mm when used as an underlay or wall / floor material. For heavy duty commercial applications it should be a minimum of 9mm thick and all should be fixed in accordance with the manufacturer's instructions and the relevant standards.

Compressed fibre-cement sheet (CFC) must be 15mm thick when used as a floor substrate, and when used a wall substrate must be 9mm thick and be installed in accordance with the manufacturer's instructions and the relevant standards.

When applying over CFC, it is advisable to conduct a water droplet test to determine the porosity of the particular grade of CFC which can vary. If the water is absorbed quickly into the CFC then it should be considered "porous" and primed with Nitoprime 120.

Gypsum – plasterboard sheets must be a minimum of 10mm thick when used as a wall substrate, and installed in accordance with the manufacturer's instructions and the relevant standards.

When applying the primer onto a floor surface it is recommended to firstly pour some primer in a section then spread the primer using a brush or roller. Then continue this method of application until the entire area is primed. Note: this method of application ensures a thorough coat of the primer on the surface.

Allow the primer to dry for approximately 30 – 40 minutes at 20°C prior to commencing tiling.

When applying to non-porous surfaces, prime the prepared surface with Nitoprime 115 as per the instructions in the Nitoprime 115 TDS.

Expansion / Movement joints

Expansion / movement joints must be provided to allow for movement between adjacent building components in accordance with AS3958.1-2007. They should be as follows:

- Over existing joins in the substrate
- Where two different substrates meet eg. timber and concrete
- Around fixed elements in the floor e.g columns
- At internal vertical corners
- Around the perimeter of the floor
- Every 4.5 metres externally and every 6 metres internally

Movements joints should go right through the tile adhesive bed to the background and kept free from dirt and adhesive droppings. Movement joints must not be less than 6mm and not wider than 10mm. The movement joints must be filled with a flexible sealant such as Nitoseal PU400.

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Mixing

The mixing ratio of Nitotile Plus is 6.5 litres of water to 20kg of powder. Pour clean water into a drum and then gradually add the Nitotile Plus while mixing continuously until a smooth lump free mix is obtained. Always add powder to liquid.

Allow the mix to stand for 5 minutes, re-stir and then apply the adhesive onto the prepared/primed substrate.

Application

All tiling should be carried out in accordance with AS3958.1:2007 - A Guide to Tiling

Once the surface has been appropriately prepared, then apply the adhesive onto the substrate using a notched trowel.

For floor tiling use a 10mm x 10mm square notched trowel for tiles up to 300mm x 300mm. For tiles 300mm x 300mm and larger, use a 12mm x 12mm square notched trowel. For mosaic tiles use a 6mm x 6mm square notched trowel.

For wall tiling use a 6mm x 6mm square notched trowel for tiles up to 150mm x 150mm. For larger tiles than 150mm x 150mm use a 10mm x 10mm square notched trowel.

Nitotile Plus should be applied into the substrate at a rate of 1m² at a time. Application rates greater than this can result in the adhesive skinning. Once the adhesive skins, do not lay tiles into it, but remove it and apply fresh adhesive.

When placing the tiles into the adhesive, press them in by sliding the tile back and forth at least 20mm across the trowel lines. Ensure no voids occur and full coverage of adhesive is under the tiles.

For tiles 300mm x 300mm or larger, or tiles with lugs, grooves or uneven backing, it may be required to butter the back of the tile with the adhesive in addition to trowelling the adhesive onto the substrate. Apply a 1mm coating across the whole back of the tile.

The final bed thickness of the adhesive should be at least 2mm for wall tiling and 3mm for floor tiling.

Once the tiling is completed do not disturb the tiled surface for at least 16 - 24 hours at 20°C.

Nitotile Plus can be directly adhered to Nitoproof 310, Nitoproof 410 and Nitoproof 810.

NOTE: If applying Nitotile Plus over Nitoproof 750 or Nitoproof 910, ensure the membrane has been sand blinded and installed as per the current Nitoproof 750 / Nitoproof 910 Technical Data Sheet.

Cleaning

Excess adhesive from the face of the tiles can be cleaned up with damp cloth while the adhesive is still wet.

Adhesive that has oozed out into the grout joint must be raked out with a knife / spatula etc.

Tools and other equipment can be cleaned up using water while the adhesive is still wet.

Grout application

Grouting applications can commence 8 to 16 hours after the completion of tiling.

Limitations

Do not apply Nitotile Plus in temperatures above 40°C and below 5°C.

Nitotile Plus should not be used for fixing tiles directly onto timber floors or timber framed decks.

Exterior framed decks require increased rigidity and support. Double framing and/or a sand cement screed may be required.

Nitotile Plus should not be used for fixing tiles in permanently immersed situations like swimming pools, spas etc and permanently damp concrete slabs like those present around the pool surrounds.

Supply

Nitotile Plus 20kg bag:	FC000620-20KG
Nitoprime 120 15 litre:	FC000601-15L
Nitoprime 115 4 litre:	FC000600-4L

Coverage

A 20kg bag of mixed Nitotile Plus will cover approximately 9m² using a 10 mm notched trowel on floors and 16m² on walls using a 6mm notched trowel.

Storage

Nitotile Plus has a shelf life of 12 months from date of manufacture if kept in a dry store in the original, unopened bags. Do not use if there are lumps in the product. If stored in high temperature and high humidity locations the shelf life may be reduced

Important notice

A Safety Data Sheet (SDS) is available from the Fosroc website. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

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