

Fosroc Nitoproof ET Slurry

Formerly known as Cicol ET Slurry



constructive solutions

Bridge deck waterproofing membrane

Uses

Nitoproof ET Slurry provides a lightweight, yet extremely hard wearing anti-skid surface waterproof to a variety of substrates including steel, concrete, asphalt and timber.

Ideally suited for bridge deck waterproofing.

Advantages

- Lightweight
- Hard wearing
- Flexible
- Excellent adhesion to steel and concrete substrates
- Non-slip, excellent grip even when wet
- Chemically resistant
- Waterproof
- Zero spread of flame

Description

Nitoproof ET Slurry is a three component system based upon solvent free, coal tar modified epoxy resins, amine curing agents and chemically inert, graded silica fillers which when mixed forms a fluid, homogeneous slurry.

Specially selected Dynagrip aggregates are broadcast onto this slurry whilst it is still wet to provide a lightweight, flexible, durable, anti-skid dressing which can be used on a variety of substrates including steel, concrete, timber and aluminium.

Design criteria

The thickness of the Nitoproof ET Slurry is varied to suit traffic conditions as shown in the table below.

| Traffic density | Nitoproof ET Slurry thickness | Aggregate type | Nominal thickness |
|-----------------|-------------------------------|----------------|-------------------|
| Medium | : 3.0mm | 20 mesh | 3.5mm |
| Heavy | : 3.0mm | 1 to 3mm | 5.5mm |

The final thickness of the finished surface dressing will be between 3.5 to 5.5mm depending upon the exact system chosen to meet the expected end use.

When used as a bridge deck waterproofing membrane 1-3mm aggregate should be used.

Nitoproof ET Slurry HB* is recommended on ramps with a slope greater than 5 degrees.

Properties

Pot life at 20°C : 30 mins

Specific gravity : 1.74

Curing time at 20°C : Foot traffic after 24 hours, vehicular traffic after 48 hours

Water permeability : Nil

(at 5 bar pressure)

BSEN 12390 P8 (BD47)

Water absorption : Nil

(ASTM C413)

Compressive strength : >45N/mm²

(ASTM C579)

Resistance to high

temperature : No sign or dripping

150°C during asphalt

placing ASTM D1227 (BD47)

Resistance to chisel

impact : No cracks or indentation

(BD47) were observed

Adhesion to concrete : Greater than the tensile

(BS1881 P207) strength of concrete

Resistance to

Pin/Blow holing : No blisters or pin holes

Resistance to abrasion : High abrasion resistance

<10mg

(using taber abraser

ASTM D4060)

CS17, 1000g, 1000 cycles

Crack Bridging ability : >2.0mm

ASTM C836

Fully cured Cicol ET Slurry has been shown to be resistant to the following chemicals after continuous immersion for 12 months at 20°C:

Chemical resistance : Petrol
Kerosene
Hydraulic fluids,
Dilute mineral acids and
alkalis 10% Urea in
water De-icing salts
Diesel
Aircraft fuel

Fosroc Nitoproof ET Slurry

Instructions for use

Preparation

Nitoproof ET Slurry can be applied to a variety of substrates. As with all flooring materials or protective coatings, correct surface preparation is essential.

Steel substrates

Nitoproof ET Slurry is specially formulated to exhibit excellent adhesion to un-primed steel. However, all steel substrates should be blast cleaned to a minimum SA2^{1/2} standard of cleanliness. An angular profile amplitude of at least 75 microns is recommended.

The slurry should be applied as quickly as possible to the blasted steel surface. If the standard of the surface falls below SA2^{1/2} then the steel must be reblasted.

Concrete substrates

Nitoproof ET Slurry is applied to clean, sound, dry concrete substrates which are free of any laitance or loose particles. Mechanical scarifying or blasting methods are strongly recommended.

Prepared concrete substrates should be primed with Nitoprime 25 which is applied by lambswool roller to provide a thin even coverage. Avoid over application and puddles. Nitoproof ET Slurry is applied onto the Nitoprime 25 as soon as it is free from surface tack.

Asphalt substrates

Nitoproof ET Slurry can be applied onto asphalt substrates providing they are clean, sound and dry. It is also recommended that the asphalt should be at least 12 months old.

Asphalt should be lightly grit blasted to remove any weakly bonded or contaminated material to provide the desired surface. No primer is required on asphalt.

Wooden substrates

Nitoproof ET Slurry can be applied directly onto clean, dry timber substrates.

Aluminium substrates

Must be sweep blasted and degreased if necessary using Fosroc Solvent 102* to provide a sound mechanical key. Nitoproof ET Slurry can be applied directly to the prepared substrate.

Mixing

Mix the base and hardener thoroughly using a slow speed drill and Fosroc Mixing Paddle (MR3), or forced action mixers such as creteangle or zyklos. Add the mineral fillers and mix until a homogeneous slurry consistency is formed. The total mixing operation should take about 5-7 minutes.

The Nitoproof ET Slurry is now ready for use. **Do not** add thinners or solvent.

Application

Once mixed the Nitoproof ET Slurry must be used within the specified pot life.

Pour the slurry onto the prepared surface. Work in lanes of 2-3 m wide masking off edges with tape. Spread the slurry using a steel trowel or squeegee taking particular care when joining up to the previous day's work.

Use of a wet film gauge is recommended to ensure the correct thickness and material usage. The Dynagrip surface dressing aggregate must be applied immediately after laying the Nitoproof ET Slurry.

The slurry coating is blinded to saturation by allowing the aggregate to fall vertically until no slurry is visible. Do not throw aggregate across the slurry as this may cause ridges. Masking tape must be removed before the coating has cured.

The Nitoproof ET Slurry must be allowed to cure for 24 hours at 20°C before being subject to foot traffic. At lower temperatures this period will be increased.

Cleaning

All tools can be cleaned immediately after use with Fosroc Solvent 102.

Limitations

- Nitoproof ET Slurry should not be applied when the relative humidity is greater than 80% or the ambient temperature is expected to fall below 5°C.
- Nitoproof ET Slurry should not be applied on ramps with a slope greater than 5 degrees.

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, Fosroc offers a technical support package to specifiers, end users and contractors, as well as on-site technical assistance in locations all over the world.



Fosroc Nitoproof ET Slurry

Estimating

Supply

| | | |
|---------------------|---|-------------------|
| Nitoproof ET Slurry | : | 20 litre packs |
| Nitoprime 25 | : | 1 & 4 litre packs |

Coverage

| | | |
|---------------------|---|--------------------------------------|
| Nitoproof ET Slurry | : | 3.0 litre/m ² @ 3mm thick |
|---------------------|---|--------------------------------------|

Dynagrip

| Aggregate | Gross (kg/m ²) | Net (kg/m ²) |
|--------------|----------------------------|---------------------------------|
| 20 mesh | 5.5 | 3.7 |
| 1.0 to 3.0 | 7.0 | 5.2 |
| Nitoprime 25 | : | 4.0 - 5.0 m ² /litre |

Notes : Coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced - site trials are recommended.

For "specialised uses", please contact the local Fosroc office for coverage figures.

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.

Flash points (Abel closed cup)

| | | |
|--------------------|---|------|
| Fosroc Solvent 102 | : | 33°C |
| Nitoprime 25 | : | 39°C |

Precautions

Health and safety

Nitoproof ET Slurry, Nitoprime 25 and Solvent 102 should not come into contact with the skin or 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 advise. If swallowed, seek medical attention immediately - **do not** induce vomiting.

Fire

Fosroc Solvent 102 is flammable. Ensure adequate ventilation. **Do not** use near naked flame. **Do not** smoke.

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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.

* Denotes the trademark of Fosroc International Limited

† 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 Conditions for the Supply of Goods and Service. **All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.**

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