



Nitoflor WEC3000

Light & medium duty abrasion resistant epoxy modified cementitious floor screed

Uses

Nitoflor WEC3000 provides a high strength floor topping with very good resistance to surface mechanical wear. It has a safe nonslip finish for personnel and vehicular traffic.

Ideally suited for dry areas in engineering plants, oil refineries and paint workshops and also for wet areas such as dairies, food industries, breweries etc., that are continuously exposed to water.

In areas where high degree of cleanliness is required the surface of Nitoflor WEC3000 can be sealed with Nitoflor FC140 or any other Nitoflor epoxy resin floor coating systems.

Advantages

- **Solvent free:** Non-toxic. Safe to use indoors.
- **Moisture tolerant :** Can be applied on damp concrete surfaces.
- **Dual system :** Combines the properties of both cement & epoxy
- **Economical:** Offers price advantage when compared to pure epoxy screeds
- **Durable:** Highly resistant to abrasion
- **Nonslip:** Good gripping surface to both vehicular and pedestrian traffic
- **Compatibility :** Compatible with cementitious substrates.
- **Thickness:** Minimum application thickness shall be 3mm
- **Easily laid:** Designed for easy laying to a fair finish

Description

Nitoflor WEC3000 is a four part, solvent free screed which is a cement epoxy based formulation, with specially selected and graded high crushing strength, chemically inert aggregates.

Nitoflor WEC3000 requires Nitoprime WEC, a two part emulsified epoxy resin based primer. The system is compatible for a overcoating with a range of Nitoflor epoxy coating systems.

Technical Support

Fosroc provides a technical advisory service supported by a team of specialists in the field.

Properties

Curing characteristics

Nitoflor WEC3000	27°C
Specific gravity	1.944 g/cc
Pot life	40 min.
Foot traffic (Initial cure)	24 hrs
Vehicular traffic (Final cure)	7 days

Nitoprime WEC

Pot life	45 min
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Mechanical characteristics

Property 27°C	Test Method	Nitoflor WEC3000
Compressive strength @ 28 days (N/mm²)	BS6319 Part 2	30
Flexural strength @ 28 days (N/mm²)	BS 6319 Part 3	6
Tensile strength @ 28 days (N/mm²)	BS 6319 Part 7	3.5

Bond strength to concrete (N/mm²)	(Elcometer Pull off test)	2.0
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Chemical resistance

Nitoflor WEC3000 is resistant to spillage of sea water, oils, sugars and dilute alkali solutions. Suitable for areas of occasional spillage where good housekeeping is ensured. When overcoated with Nitoflor epoxy coatings like Nitoflor FC140 / Nitoflor FC145, the chemical resistance properties are greatly enhanced. Contact Fosroc for advise.

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Application Instructions

Surface preparation

It is essential that Nitoflor WEC3000 is applied to sound and clean surfaces in order to achieve maximum bond strength between the substrate and the flooring system.

New concrete floors

Laitance & deposits on new concrete floors are best removed by light grit blasting, mechanical scrubbing or grinding. On smaller areas thorough acid etching using Reebaklens may be considered. After etching the floor should be thoroughly washed with clean water.

Old concrete floors

Again, mechanical cleaning methods are strongly recommended on old concrete floors particularly where heavy contamination by oils and grease has occurred or existing coatings are present. This may well have been absorbed several mm into the concrete. To ensure adhesion, all contamination should be removed.

All dust and debris should be removed prior to laying Nitoflor WEC3000.

Priming

All concrete surfaces to be treated with Nitoflor WEC3000 should be primed with Nitoprime XG a moisture insensitive epoxy resin primer designed for maximum adhesion to the substrate. For best results, the substrate is required to be prewetted by water before taking up application of Nitoprime XG. This is mandatory in case of old and porous substrates. Generally, overnight ponding with water is sufficient in these cases. Avoid logging of water while prewetting of the substrate.

Mix base and hardener thoroughly and apply the mixed material in a thin continuous film to the clean prepared surface. Work the primer into the surface using stiff brushes, avoid over application and puddling. On porous concrete surfaces, Nitoprime XG will be absorbed very quickly. It is recommended that a second coat of primer be applied in such cases.

Allow Nitoprime XG to become tacky. This time is dependent on climatic conditions and normally takes 60 minutes. However, Nitoflor WEC3000 shall be applied only after about 6 hours.

Mixing

It is important that Nitoflor WEC3000 is mixed correctly. A suitable forced action mixer such as a paddle fitted to a heavy duty, slow speed, electric hand drill or a screed mixer, is recommended for mixing.

Base and hardener and the special additive are poured into the mixing vessel and mixed thoroughly until homogenous, for 30 seconds.

It is recommended that the aggregate in the bag is blended well manually before adding to the mixed resin and hardener. Then add the aggregate slowly to this mixture. Continue mechanical mixing for a further 2 - 3 minutes, until all the components are thoroughly blended. Once mixed, the materials must be used within the specified pot life period. After this time, unused materials will have stiffened and should be discarded.

Application

The material is poured onto the primed substrate and spread to the required thickness with a steel trowel. Alternatively, a serrated trowel can be used. The resin floor should not be overworked but spread slowly and evenly.

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Immediately after spreading, the floor should be firmly rolled with a spiked roller to help release any entrapped air in the material and level any slight trowel marks. The floor should now self smooth to an even coloured dense, impervious floor.

Note:

1. Nitoflor WEC3000 can be applied on a 7 day old cured concrete substrate. In case of VDF Nitoflor WEC3000 can be applied on a 5 day old concrete.

Expansion joints

Nitoflor WEC3000 shall not be applied over the existing expansion joints in the substrate.

Sealing

The surface of Nitoflor WEC3000 may be sealed with Nitoflor epoxy floor coating systems. For this, Nitoflor WEC3000 must be atleast 7 days old and high spots such as cold joints and trowel marks rubbed down.

Cleaning

All tools and equipment should be cleaned immediately after use with water or acetone.

Estimating

Packaging and coverage

	Pack size	Approx.coverage rate
Nitoprime XG	1 L	5.2 - 6.2 m ²
Nitoflor WEC3000	9 L (17.5 kg)	3m ² @ 3mm thickness.

The above coverage rates are given for guidance only as the actual quantities required will vary with nature of substrate and site conditions.

Storage

Nitoprime WEC and Nitoflor WEC3000 have a shelf life of 6 months when stored in a dry place below 35°C in unopened containers.

Nitoflor WEC3000



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