Fosroc® Nitoflor® Sicaltop

constructive solutions

Silicon carbide / alumina additive - dry shake on floor hardener

Uses

Nitoflor Sicaltop provides a non-rusting, extremely hard wearing, abrasion and slip resistant surface to new concrete floors. Applied by the shake-on method it is ideally suited for all industrial areas subject to the heaviest traffic, e.g. loading bays, trucking lanes, car parks, warehouse floors, repair workshops, machine shops, etc.

Advantages

- Provides an extremely strong, hard wearing, abrasion and impact resistance surface
- Forms a monolithic bond with the base concrete
- Contains silicon carbide to provide excellent non-slip properties - slip resistance increases with use
- Non-metallic chemically inert aggregate - does not rust
- Economical to apply
- RCS (Respirable Crystalline Silica) Hazard Free*

Description

Nitoflor Sicaltop is a quality controlled, factory blended powder which is ready to use on-site. It consists of selected and graded silicon carbide and alumina based aggregates, Portland cement and special additives to improve workability.

The formulation provides a flooring compound which is easy to trowel into the surface of a fresh, wet concrete slab. When applied at the recommended application rate Nitoflor Sicaltop provides a hard wearing, abrasion resistant surface.

Silicon carbide and alumina based aggregates are extremely hard, chemically inert aggregates which resists polishing, therefore providing a non-slip, skid resistant surface even when wet. Also, being non-metallic, Nitoflor Sicaltop will not rust.

Incorporation of workability additives in Sicaltop reduces placing time by up to 20% compared to site batched material and ensures full hydration and compaction of the shake-on wearing course.

*Nitoflor Sicaltop is classified not hazardous for RCS in accordance with Australian Inventory of Industrial Chemicals; contains <0.1% RCS.

Nitoflor Sicaltop is available in natural concrete Grey.

Design Criteria

Refer to 'Nitoflor Sicaltop application guide' when applying the integral floor hardener' for details of concrete mix design and other factors to ensure the successful application of Nitoflor Sicaltop.

Nitoflor Sicaltop is applied at 2 to 4 kg/m².

Properties

Compressive strength

Compressive strength tests to BS 1881 part 4-1970 (Clause 2) indicate that Nitoflor Sicaltop has a compressive strength at 28 days of approximately 95MPa.

Abrasion resistance

Tests on abrasion resistance have been performed by the Australian Mineral Development Laboratories. These tests, described in Report No. MT 2802/72 indicate that concrete floors treated with Nitoflor Sicaltop gave a greater than 200% improvement in abrasion resistance over the recommended dosage range compared to untreated floors.

Permeability to water

Simulated permeability tests under pressures of up to 340kPa demonstrated a reduction in water permeation.

VOC content

Nitoflor Sicaltop has a VOC content of 7g / litre.

Hardness

Silicon carbide (Moh's modified scale):	13
Alumina based aggregate used in Nitoflor Sicaltop (Moh's modified scale):	12

Application Instructions

The application of Nitoflor Sicaltop occurs over a freshly laid concrete slab.

For detailed application instruction, refer to 'Nitoflor Sicaltop application guide' on the Fosroc website. Users are strongly advised to read this document before attempting any application of the product.

Limitations

As Nitoflor Sicaltop is an integral floor hardener, it is not suitable for use with post-tensioned slabs.

Supply

Nitoflor Sicaltop Grey 20kg:	FC602040-20KG

Coverage

Traffic conditions	Dosage kg / m²	Coverage m² / 20 kg bag
Light traffic:	2.0	10.0
Medium traffic:	3.0	6.7
Heavy traffic:	4.0	5.0

The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures may be reduced.

Storage

Nitoflor Sicaltop has a shelf life of 18 months if stored in original, undamaged, packaging.

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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