



constructive solutions

Fosroc Cemtop 250T

(Formerly Nitoflor Leveltop)

Self smoothing, cementitious floor compound,
2mm - 6mm

Uses

Cemtop 250T provides a self levelling, cementitious underlay for a wide variety of floor finishes which require a smooth level substrate, such as:

- Tiles
- Carpeting
- Vinyl sheeting
- Linoleum
- Rubber and other sheet flooring

Advantages

- Can be used directly on in situ or precast floors to provide smooth level surface without screeding.
- Excellent adhesion to prepared substrates.
- Quick easy laying and fast hardening.
- One pack product - simply mixed with water on site.
- Versatile - can be applied in thicknesses of 2mm to 6 mm.

Standards compliance

Cemtop 250T exceeds the UK Building Research Establishment requirements (CP 72/78 and IP 11/84) for Category A floor screeds.

Description

Cemtop 250T is a blend of specially selected cements, graded aggregates, polymers and set control additives. It is supplied as a dry, grey powder which requires only the addition of water to produce a smooth free flowing and self levelling material which can be laid to a feather edge. This provides an ideal fairing material for levelling uneven, in situ or precast concrete floors.

Cemtop 250T has been carefully formulated to enable it to be applied at temperatures up to 35°C.

Specification

Where shown on the contract documents, the self smoothing, cementitious floor compound shall be Cemtop 250T by Fosroc. It shall be capable of sustaining foot traffic within 10 to 18 hours, when applied at an ambient temperature of 35°C. It shall further show an indentation of less than 3 mm

Properties

The test results below were determined on laboratory specimens and may vary from those obtained under site conditions.

Compressive strength	:	>20 N/mm ² @ 28day
(BS EN 196-1) cured at 35°C		
BRE Screed Test	:	< 3 mm indentation@ 28 days
Flow (BS 890 Cone)	:	Initial - 290 mm @ 10 mins - 300 mm @ 15 mins - No flow
Foot traffic	:	16-24 hours @ 20°C 10-18 hours @ 35°C

Instructions for use

Preparation

New concrete should be at least 21 days old. The substrate should be clean, sound and free from loose material and contamination such as plaster, oil, paint and grease. Excess laitence should be removed by light scabbling or blasting followed by washing and vacuuming to remove dust debris. Light oil and grease staining can be removed with proprietary chemical degreaser, followed by washing with clean water.

Priming

The substrate should be thoroughly prepared as detailed above. The substrate should be pre-soaked with clean water for 4 hours. After 4 hours, any standing water should be removed so that the substrate is in a saturated surface dry condition.

The objective of priming the substrate is to "seal" it, and thereby prevent release of air from the substrate, which would cause bubbles or pinholes in the surface of the Cemtop 250T. Additionally it aids adhesion between the two surfaces. The substrate must be primed using Nitoprime 33. Where this is not available, Nitobond PVA is an acceptable alternative.

Two coats of primer are required. For the first coat, add 1 part Nitoprime 33 to 5 parts clean water. If using Nitobond PVA, add 1 part Nitobond PVA to 3 parts clean water. The diluted primer should be brushed into the floor by broom. Spray or roller application is not recommended as insufficient primer will be applied.

When the first coat of primer is touch dry, a second coat should be applied. Add 1 part Nitoprime 33 (or Nitobond PVA) to 3 parts clean water and apply to the substrate in a similar manner. For highly porous substrates, a third coat of the 1:3 diluted primer may be necessary.

Ponding of the primer must be avoided as this can lead to

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Installation by hand

Mixing

Cemtop 250T should be mixed in a forced action mechanical mixer or by a heavy duty drill fitted with a purpose made mixing paddle.

Each 25 kg bag of Cemtop 250T requires the addition of 6.5 litres of cool, clean water to produce a free flowing self levelling consistency (water addition will vary according to each site condition).

Best results are obtained by using the following mixing procedure:

- a. Pour 2/3 of the mixing water into the mixing vessel.
- b. Slowly add the 25kg of Cemtop 250T whilst continuously mixing, until a smooth consistency is obtained. Mix for a minimum of five minutes.
- c. Slowly add the remaining 1/3 water mixing throughout to obtain a smooth, self levelling, pourable mix.

Do not mix more Cemtop 250T than can be reasonably laid within the flow time of the material i.e. 10 minutes @ 35°C. However, ensure that subsequent mixes are ready, to enable continuous pouring of the whole area to be surfaced.

Application

Good site organisation is essential - the required thickness must be achieved in one application. Best results are achieved when the pouring and levelling is a continuous process until the designated area is completely levelled.

Pour the mixed material onto the primed substrate, spread with a trowel or squeegee and allow to self level. The material must then be rolled with a Fosroc Spiked Roller to achieve air release and final level. Rolling must be done immediately after placing the material. Do not attempt to float the setting surface.

If high spots or splashes occur these can be scraped off with the edge of a trowel after initial set.

Points to note

Slabs on a sloping gradient must incorporate a damp proof membrane in the subfloor.

Curing

Curing is generally not required. However under harsh curing conditions such as high ambient temperatures, drying winds etc., freshly hardened surfaces should be cured for two days with a polythene sheet.

Floor adhesives

Proprietary floor adhesives should be applied 48 hours **after** application of Cemtop 250T.

Limitations

- Application should not commence if the temperature of the substrate is below 5°C.
- Cemtop 250T should not be used on floors known to suffer from rising damp, unless treated with a suitable damp proof membrane.
- There should be no air flow over the floor area until the material has hardened (16 to 24 hours).
- A minimum application thickness of 3 mm is advised to sustain the standard physical performance of the product.
- In applications where high flexible material is required contact the local Fosroc office for advice

High temperature working

It is suggested that, for temperatures above 35°C, the following guidelines are adopted as good working practice:

- (i) Store unmixed material in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.
- (ii) Keep equipment cool, arranging shade protection if necessary. It is especially important to keep cool those surfaces of the equipment which will come into direct contact with the material itself.
- (iii) Try to eliminate application during the hottest times of the day and in direct sunlight.
- (iv) Make sufficient material, plant and labour available to ensure that application is a continuous process.
- (v) Water (below 20°C) should be used for mixing prior to placement.

Technical support

Fosroc offers a comprehensive range of high performance, high quality repair, maintenance and construction products. 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.

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Estimating

Supply

Cemtop 250T	:	25 kg bags
Nitobond PVA	:	25 & 200 litre can
Nitoprime 33	:	25 lt containers
Fosroc Acid Etch	:	25 litre pails

Coverage

Cemtop 250T	:	7.5 m ² / 25 kg bag @ 2 mm thickness
Nitobond PVA	:	10 m ² /ltr per coat
Nitoprime 33	:	10 m ² /ltr per coat 5m ² /ltr per 2 coats

Storage

Cemtop 250T has a shelf life of 6 months and Nitobond PVA has a shelf life of 12 months if kept in a dry store in their original unopened packages @30°C.

Store in cool, dry conditions in original unopened packs. If stored at high temperature and/or high humidity conditions, the shelf life may be reduced.

Precautions

Health and safety

Cemtop 250T is non-toxic but is mildly alkaline. Gloves should be worn during use. Splashes to the skin should be washed with clean water. Accidental splashes to the eyes should also be washed with water but should prolonged irritation occur medical advice should be sought.

Fire

Cemtop 250T is non-flammable.

Cleaning and disposal

All tools and equipment should be cleaned with water.

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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



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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