

3mm - 6mm, Self smoothing, cementitious floor compound

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 3mm 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 27°C. It shall further show an indentation of less than 3 mm at 28 days, when tested in accordance with the BRE Screed Test.

Properties

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

BRE Screed Test	:	< 3 mm indentation@ 28 days
Flow (BS 890 Cone)	:	Initial - 27 - 30 cm @ 10 min 24 - 26 cm @ 15 min 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 laitance should be removed by light scrubbing 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 purpose of priming is to seal the substrate, to prevent air release from forming bubbles and pinholes in the surface of the Cemtop 250T.

The substrate should be primed using Nitoprime 33. The primer should be applied by brushing it onto the floor with a stiff brush or broom. The application of primer by roller and spray is not recommended.

On VDC floors, Nitoprime 33 should be diluted with clean water (1 part Nitoprime 33 with 5 parts of water) and spread on the floor.

Porous substrates require a two-coat application of Primer. Nitoprime 33 should be diluted with clean water (1 part Nitoprime 33 with 3 parts water) and spread on the floor. The second coat (1:3 dilution) should be applied after 90 minutes or after the first coat is dry.

Puddling and ponding of the primer must be avoided as this can lead to failure at the bond line.

Extremely porous substrates will require at least two priming coats. In this case, allow the previous coat to dry before applying the subsequent coats. The surface should be pre-soaked with wet hessian for several hours prior to priming and application.

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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 20 kg bag of Cemtop 250T requires the addition of 5.2 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 20 kg 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 @ 27°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 damp hessian completely covered 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.

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 the grout prior to placement.

Technical support

Fosroc offers a comprehensive range of high performance,

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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.

Estimating

Supply

Cemtop 250T	:	20 kg bags
Nitoprime 33	:	1 & 5 litre can
Fosroc Acid Etch	:	5 and 20 litre

Coverage

Cemtop 250T	:	4.0 m ² / 20 kg bag @ 3 mm thickness
Nitoprime 33	:	20 m ² /litre/coat (after dilution with clean water as specified).

The coverage figures are for guidance only. The actual rate depends on the absorbency and surface roughness of the substrate.

Note: The primer must be well brushed out and ponding avoided as too thick a layer of cured primer may cause debonding

Storage

Cemtop 250T has a shelf life of 6 months and Nitoprime 33 has a shelf life of 12 months if kept in a dry store in their original unopened packages.

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.

Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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