Fosroc®
Cemtop® Screed

High performance cementitious flooring mortar (3 to 40mm thickness)

Uses

Cemtop Screed is used to provide a strong and durable cementitious screed that can be applied to a wide variety of substrates, including concrete, concrete blocks, aerated concrete blocks (AAC) and fibre cement.

Cemtop Screed is used to correct falls in concrete substrates prior to the application of waterproofing membranes and floor finishes.

Advantages

- Specifically formulated for fast and easy application to internal and external cementitious substrates
- Can be applied directly onto prepared concrete floors, eliminates traditional sand cement screeds
- Excellent adhesion to prepared substrates
- Single component eliminates site batching
- Shrinkage compensated
- RCS (Respirable Crystalline Silica) Hazard Free*

Description

Cemtop Screed consists of a blend of selected cements, graded aggregates with polymers and flow agents. Used in conjunction with Nitoprime 330.

Cemtop Screed is a grey powder which requires only the addition of potable water to produce a highly consistent easy to trowel mortar.

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

Design Criteria

Cemtop Screed must be applied at a minimum thickness of 3mm to a maximum thickness of 40mm.

Cemtop Screed can be applied in areas up to 5m^2.

Properties

Compressive strength AS1478.2:2005:	15 MPa @ 1 day 21 MPA @ 2 days 25 MPa @ 7 days 37 MPa @ 28 days
Modulus of rupture flexural strength AS1012.11-2000:	4.2 MPa @ 1 day 5.7 MPa @ 7 days 6.8 MPa @ 28 days
Indirect tensile strength AS1012.10-2000:	2 MPa @ 1 day 2.9 MPa @ 7 days 3.8 MPa @ 28 days
Drying shrinkage AS1478.2-2005:	516 microstrain 7 Days <800 microstrain 28 days
Pot life:	2 hours @ 23°C
Initial set:	3.5 hours @ 23°C
Final set:	5 hours @ 23°C
Traffic time:	Foot: 16 hours @ 23°C Vehicle: 24 hours @ 23°C
Application temperature:	5°C - 30°C
Service temperature:	3°C - 60°C

Application Instructions

Surface preparation

All surfaces to be protected by Cemtop Screed must be structurally sound and strong.

Structural defects must be repaired prior to the Cemtop Screed application.

Application

The substrate should be clean, sound and free from loose material and contamination such as curing compounds, oil, paint and grease.

New concrete should be at least 14 days old.

Laitance should be removed by light scabbling or captive shot blasting followed by vacuuming to remove dust debris. Oil and grease must be removed.

Priming

The object of priming is to seal the substrate to help prevent air release from the subfloor rising and forming bubbles and pinholes on the surface of the Cemtop Screed.

Extremely porous substrates may require two priming/sealing coats. Primer coats must be allowed to become touch-dry before applying the Cemtop Screed.

Nitoprime 330 is the recommended primer for Cemtop Screed and is supplied in concentrate form. Dilute the Nitoprime 330 1 part primer to 4 parts of clean water before using.

Apply diluted Nitoprime 330, to porous surfaces with brush or broom and allow to “damp dry” / become tacky. Do not allow the primer to completely dry – re-apply if substrate is porous. Do not apply primer more than 2 – 3 minutes ahead of application of the Cemtop Screed.

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Alternatively, Nitobond AR can be used as the primer for Cemtop Screed. Nitobond AR should be diluted 1:1 with clean water and applied as above.

Mixing instructions

Each 20kg bag of Cemtop Screed requires the addition of 2.6 to 2.8 litres of clean, cool water to produce the required consistency.

Pour the mixing water into the clean mixing vessel. Add the powder slowly to the water, mixing continuously with a heavy duty mixer fitted with a suitable spiral paddle. Mixing should continue for at least 3 - 4 minutes until a smooth consistency is obtained.

Do not mix more Cemtop Screed than can be reasonably laid within the pot life of the material. However, ensure that subsequent mixes are ready to enable continuous placement until the area to be surfaced is complete.

Trowel or screed application

Place the mixed Cemtop Screed onto the primed surface, tamping it down to the required thickness. If using a screed, work in two directions, the second at 90 deg. to the first. Avoid over working Cemtop Screed, this brings excessive moisture to the surface.

Finish small areas, of 2 to 3m², before moving on.

“Finishing off” floors is best achieved with the use of a short nap mohair roller (for a “rough” finish) or a sponge trowel (for a “smooth” finish).These methods will help eliminate trowel marks from the finish.

Caution: DO NOT place more Cemtop Screed on the surface than can be finished in 15 minutes.

Wash all tools every 30 minutes. DO NOT allow Cemtop Screed to build up on equipment.

Clean up all spills and droppings immediately.

Build-up

Sections greater than 40mm thickness can be achieved by application of multiple layers. In this instance, the surface of the intermediate layers should be scratch-keyed, covered with polythene sheeting secured at the edges, and allowed to set for a minimum of 7 hours (at 23°C) before continuing.

Repriming as described above and a further application of Cemtop Screed may proceed at this time.

Curing

Being cementitious, Cemtop Screed will benefit from the use of curing compounds such as Concure A99 or curing aids such as plastic sheeting after application. Mechanical removal of any curing compound may be necessary before subsequent application of waterproofing or flooring products.

Cemtop Screed achieves full strength and resistance capability after a 28 day curing period however its characteristics provide for a high early strength and thereby allow an early practical use of treated surfaces after 24 hours.

Limitations

Do not apply at temperatures below 5°C or above 30°C.

Do not apply in hot windy conditions.

Cemtop Screed is not designed for structural applications.

Supply

Cemtop Screed is supplied in 20 kg bags.

Cemtop Screed 20kg:	FC602057-20KG
Nitoprime 330 is supplied as a concentrate in 1, 5 and 20 litre pails.	
Nitoprime 330 1 litre:	FC605120-1L
Nitoprime 330 5 litre:	FC605120-5L
Nitoprime 330 20 litre:	FC605120-20L

Coverage

Cemtop Screed:	11.5 litre / 20 kg pack; Approx. 4m² @ 3mm thick
Nitoprime 330:	6 - 8 m² / litre depending on surface porosity and dilution rate. Refer to the Nitoprime 330 data sheet.

Storage

Cemtop Screed has a shelf life of 3 years from date of manufacture if kept in the original, unopened packaging. Refer to the manufacture date indicated on the packaging. Do not use if there are lumps in the product, or a loss of workability (requiring more water to be added) is experienced.

If stored at high temperatures and/or high humidity conditions 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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