Fosroc® Cemtop® GP Advanced

constructive solutions

High performance floor underlay, self smoothing, levelling mortar for carpet / tiles (2mm to 50mm thickness) with enhanced flow properties for fast and easy application

Uses

Cemtop GP Advanced is designed as a heavy duty underlay which forms a smooth, hard surface for a variety of floor finishes including carpet and ceramic tiles.

Cemtop GP Advanced can be used in residential, commercial and light industrial applications and is suitable for both new construction and refurbishment projects.

Advantages

- Specifically formulated for fast and easy application, with enhanced flow, enhanced flow retention and excellent 'wet-edge' (>20 mins @ 20°C)
- Fast application by pump, enables large areas of floor to be completed in a working day
- Can be applied directly onto prepared concrete floors, eliminates traditional sand cement screeds
- Dimensionally stable, can be installed in large areas
- Excellent adhesion to prepared substrates
- Rapid hardening and curing allows speedy access for foot traffic and overlaying with carpet, vinyl etc.
- One pack product, applied by pump eliminates on-site batching and ensures consistency of mixed product
- Low VOC - 21.6 grams per litre (content test certificate available on request)
- Able to be applied in thicknesses of up to 50mm without addition of aggregate
- RCS (Respirable Crystalline Silica) Hazard Free*

Description

Cemtop GP Advanced consists of a blend of selected cements and aggregates modified with polymers and flow agents. It is used in conjunction with Nitoprime 330.

Cemtop GP Advanced is supplied as a grey powder which requires only the addition of water to produce a self smoothing, free flowing material.

The product is designed for installation by a continuous mixer pump, but can also be applied by hand.

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

Design Criteria

Cemtop GP Advanced is designed for application thicknesses of 2mm - 50mm. Thicker application is possible however your local Fosroc sales office should be consulted for specific advice in this situation. Cemtop GP Advanced can be applied to clean, sound and well prepared concrete substrates which are free from loose material, oil, grease, paint etc. and has a minimum compressive strength of 20MPa.

The relative humidity of the concrete substrate must not be greater than 80% at the time of installation.

New concrete should be at least 14 days old.

Consult Fosroc for advice on the suitability of other substrates or where thickness exceeds 50mm.

The recommended application temperature range is 10°C to 35°C. If site conditions are outside of this range please consult Fosroc for advice.

Properties

The values given below are average figures based on 4.0 litres of water added per 20 kg bag of Cemtop GP Advanced. Actual values obtained on site may show minor variations from those quoted.

Physical properties

Compressive Strength - AS 1478.2 (2005)	
1 Day	10MPa
7 Day	20MPa
28 Day	30MPa
Modulus of Rupture (Flexural strength) (AS 1012.11 - 2000):	
1 Day	2MPa
7 Day	3MPa
28 Day	5MPa
Indirect Tensile strength (AS 1012.10 - 2000):	
1 Day	1MPa
7 Day	2MPa
28 Day	3MPa
Time to foot traffic @ 23°C:	4 hours
Time to overlaying @ 23°C:	
Up to 10mm thick - carpet overlay	24 hours
Up to 5mm thick - vinyl overlay	2 days
5mm to 10mm thick - vinyl overlay	3 days
10mm to 20mm thick - vinyl overlay	4 days

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Application Instructions

Although Cemtop GP Advanced has been designed for application by pump, the product can also be mixed and applied by hand.

Preparation

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

New concrete should be at least 14 days old.

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

Large cracks and holes may be filled using a mix consisting of equal volumes of Cemtop GP Advanced and clean sharp sand made up to a trowellable mortar by the addition of a small amount of water. Prime the substrate with Nitoprime 330 prior to repair.

Priming

The object of priming is to seal the substrate to prevent air release from the subfloor rising and forming bubbles and pinholes on the surface of the Cemtop GP Advanced. Extremely porous substrates may require two priming/sealing coats. Primer coats must be allowed to dry before applying the Cemtop GP Advanced.

Installation by pump

This is a specialised activity and the product must be applied by an experienced contractor who has been fully trained in the use of the product and equipment.

Thoroughly prepare the floor surface.

Prime the surface with Nitoprime 330, diluted with water, (4 parts water to 1 part Nitoprime 330) and allow to dry.

If necessary, reprime the surface with Nitoprime 330, diluted 4:1 with water and allow to dry.

Apply Cemtop GP Advanced to the required thickness onto the dry, primed surface.

Installation by hand

Thoroughly prepare the floor surface.

Prime the surface with Nitoprime 330, diluted with water, (4 parts water to 1 part Nitoprime 330) and allow to dry (Nitobond AR diluted 2:1 with water may also be used).

If necessary, reprime the surface with Nitoprime 330, diluted 4:1 with water and allow to dry.

Mixing

Each 20kg bag of Cemtop GP Advanced requires the addition of 4.0 to 4.3 litres of clean, cool water to produce a free flowing self smoothing 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 creamy consistency is obtained.

Do not mix more Cemtop GP Advanced than can be reasonably laid within the flow time of the material. However, ensure that subsequent mixes are ready to enable continuous pouring until the area to be surfaced is complete.

When substrate temperature will be below 15°C prior to the product's initial set, Cemtop GP Advanced must be mixed at the low-end of the recommended water addition rate, i.e. 4.0 litres of water per 20kg bag.

Pour the mixed material on to the dry primed surface,spread with trowel and allow to self-smooth. Roll surface with the purpose made spiked roller. Best results are achieved when the pouring and levelling is a continuous process.

Note: If the mix stiffens it should be discarded, do not attempt to re-mix with water.

Cleaning

Cemtop GP Advanced and Nitoprime 330 should be removed from tools and equipment with clean water immediately after use. Hardened material can only be removed mechanically.

Maintenance

If damage has occurred to Cemtop GP Advanced prior to the installation of the final floor finish, repair of that area can be achieved by removing any loose material, prime the repair area with diluted Nitoprime 330, allow to dry and repair with Cemtop GP Advanced.

Limitations

Although Cemtop GP Advanced has a 28 day compressive strength of 30 MPa, it is designed as an internal underlay material only and NOT a wearing course for traffic. Cemtop XD should be considered for such applications.

Cemtop GP Advanced must not be used in areas subject to permanent wetting, rising damp or where back water pressure is likely.

To prevent rapid drying, protect from direct sunlight and/or drying winds during application and the final curing period.

If the surface onto which Cemtop GP Advanced is applied moves or cracks, reflective cracking may occur.

The recommended application temperature range is 10°C to 35°C. If site conditions are outside of this range please consult Fosroc for advice.

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Supply

Cemtop GP Advanced 20kg:	FC630088-20KG
Nitoprime 330 Prime 1 litre:	FC605120-1L
Nitoprime 330 Prime 5 litre:	FC605120-5L
Nitoprime 330 Prime 20 litre:	FC605120-20L

Coverage/Yield:

Cemtop GP Advanced 20kg:

Water Addition per 20Kg Bag	Approximate Yield per 20Kg Bag	Approximate Coverage per 20Kg Bag
4.0L	11.7L	1.2m² @ 10mm thick
4.3L	12.0L	

When substrate temperatures will be below 15°C prior to the product's initial set, Cemtop GP Advanced must be mixed at the low end of the recommended water addition rate, i.e. 4.0 litres of water per 20kg bag.

Nitoprime 330:	6 - 8m²/litre (after dilution with clean water as specified)

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

Storage

Cemtop GP Advanced has a shelf life of 2 years from date of manufacture if kept in the original, unopened bags. 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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