

# TECFLOOR<sup>®</sup> CT

Flow Applied, Polymer Modified, Cementitious Floor Topping



Tecfloor<sup>®</sup> CT is a blend of selected cements, graded aggregates, polymers and flow agents. It is supplied as a dry, grey powder which requires only the addition of water to produce a self-smoothing, free flowing material.

Tecfloor<sup>®</sup> CT may be applied either by hand, or via the use of a continuous mixer pump.

## Uses

Tecfloor<sup>®</sup> CT is a levelling product which provides a rapid setting trafficable cementitious floor for new and reinstatement applications. When over coated is suitable for areas subject to chemical or hydrocarbon attack. Typical applications would include:

- Forklift Trafficked Floors
- Light Industrial Floors
- Car Parks
- Walkways and Pavements
- High Bay Warehousing Floors
- Garage and Workshops
- Underlayment for Vinyl Sheet, Tiles, Epoxy Floorings, etc.

## Benefits

- Rapid Curing- Accepts foot traffic, thus encouraging speedy progress of subsequent works
- Simple Installation- 'Pour and spread' technique allows large areas of floor to be covered very quickly
- Highly Durable- Produces a hard wearing surface, with exceptionally good impact resistance
- Versatile- Can be applied in thicknesses of 3mm to 12 mm, using a pump or by hand
- Consistent Performance- Single pack eliminates need for site batched screeds, can be applied directly to concrete

## Technical Support

Thermax offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, and dedicated specification support in locations all over the world.

## Specification

The cementitious floor underlay shall be Tecfloor<sup>®</sup> CT manufactured by Thermax. At 28 days the material should achieve a compressive strength of not less than 35 N/mm<sup>2</sup>, and an 'A' rating for the BRE (BS 8204) test for Impact Resistance.

The floor shall be prepared and the product mixed and applied in accordance with the manufacturer's current data sheet.

## Properties

The following results have been achieved under laboratory conditions, and may vary slightly from those achieved on site:

<b>Mix Density</b>	2.00 - 2.10 gm/cc	
<b>Flow (BS 890 Cone)</b>	Initial	250 mm
	After 10'	230
	After 15'	No flow
<b>Settling Time</b>	Initial	15'-20'
	Final	30'-35'
<b>Relative Humidity Test @ 700 hrs (ASTMF 2170)</b>	Passes	
<b>Moisture Vapour Emission Test @ 700 hrs (ASTMF 1869)</b>	Passes	
<b>Minimum Thickness</b>	4mm	
<b>Maximum Thickness</b>	12mm	
<b>Time to Foot Traffic at 35°C</b>	16 Hours	
<b>Time to Overlay at 35°C</b>	Please consult Thermax office	

## Design Criteria

- Tecfloor<sup>®</sup> CT can be applied to both concrete substrates and sound, sand: cement screeds.
- The relative humidity of the substrate should not exceed 75% at the time of application.
- When installed, the product will follow the existing floor gradient.
- New concrete floors should be at least 21 days old, prior to application of Tecfloor<sup>®</sup> CT.
- The substrate onto which the Tecfloor<sup>®</sup> CT is to be applied must be generally clean, sound and free from oil, grease and other contaminants.

## Instructions for Use

### New Concrete Floors

These should normally have been placed for at least 21 days and have a moisture content of less than 5%. Floors should be sound and free from contamination such as oil and grease, mortar and paint splashes or curing compound residues. Excessive laitence can be removed by light mechanical scabbling, grinding or grit blasting. Light laitence can be removed by grinding or blasting and then by vacuum cleaning.

### Old Concrete Floors

Where deep seated contamination has occurred, mechanical methods such as blasting, grinding or scabbling should be used to provide a suitable clean surface.

Any necessary repairs should be carried out using our repair range of products.

### Priming

The substrate should be primed in order to prevent air release and to provide a bond for the Tecfloor<sup>®</sup> CT. Priming is achieved by coating the floor with a solution of TM Bond<sup>®</sup> AR diluted 1:1 with potable water. If, after treatment an even sheen is not evident on the floor an additional application of primer should be made.

### Installation by Hand

#### Mixing

Only full bag mixing is permissible. Do not part mix, or add further water to the mixed material in order to prolong workability. Either of these actions will result in an incorrect water : powder ratio, and will compromise the final material performance.

It is essential that Tecfloor<sup>®</sup> CT is thoroughly mixed and that the temperature of the mixed material should not be allowed to exceed 30°C.

Measure out 9 litres of cool, potable water, into a suitably sized mixing vessel and mix a full bag of Tecfloor<sup>®</sup> CT. It is suggested that the temperature of the water should not exceed 20°C so that the temperature of the final mixed mortar is not greater than 30°C.

Add the powder to the water. Mix for 3 to 5 minutes until fully and homogenous, using a 1 KW, slow speed drill (400 to 500 rpm).

### Application

Pour the mixed material on to the dry, primed surface, spread with a trowel and allow to 'self-level'.

Roll the surface with a spiked roller to promote the release of any trapped air.

Best results are achieved when the pouring and levelling is a continuous process.

### Installation by Pump

This is a highly specialised activity and requires the use of an approved applicator, who has been fully trained in the use of product and equipment by Thermax.

### Expansion Joints

Expansion joints in the existing substrate must be retained and continued through the Tecfloor<sup>®</sup> CT. Thermax have a range of joint sealants specifically designed for flooring, consult your local Thermax office for more details.

### Cleaning

Tools and equipment should be cleaned immediately by flushing with water. Cured material can only be removed by mechanical means.

### Hot Weather Working

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

- Store unmixed materials in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.
- 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.

- Try to avoid application during the hottest times of the day.
- Make sufficient material, plant and labour available to ensure that application is a continuous process.
- Use cool water for mixing and also to soak the surface prior to the application of primer.

## Curing

Curing is highly essential. Freshly hardened surface should be covered completely with polythene sheet for 3 days.

## Coating

In areas that are subject to regular water immersion or chemical attack from acids or organic solvent, it will be appropriate to protect Tecfloor<sup>®</sup> CT with an epoxy floor coating such as Tecfloor<sup>®</sup> CT range products.

The first coat of the epoxy floor coating should be applied within 2-6 hours of installation of Tecfloor<sup>®</sup> CT and the second coat should be applied after the first coat is dry.

Areas where high chemical resistance is required, the two coats shall be Tecfloor<sup>®</sup> EC range product recommended.

## Limitations

Concrete slabs onto which Tecfloor<sup>®</sup> CT is to be applied must have a surface temperature of at least 5°C, with the air temperature maintained at 10°C, or more, during application.

Protect Tecfloor<sup>®</sup> CT from freezing for 48 hours after placement.

For temperatures above 35°C refer to Hot Weather Working. Only suitable for use out of direct sunlight and on internal floors.

## Storage

### Shelf Life

Tecfloor<sup>®</sup> CT has a shelf life of 6 months when stored in warehouse conditions below 35°C in the original, unopened packs.

### Storage Conditions

Store under warehouse conditions, below 35°C in the original, unopened packs.

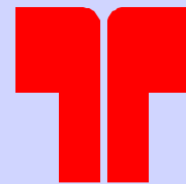
## Packing

Tecfloor<sup>®</sup> CT: 30 kg HDPE bags  
TM Bond<sup>®</sup> AR: 20 litre containers

## Coverage

Tecfloor<sup>®</sup> CT: 4.8 m<sup>2</sup>/30 kg bag @4mm thickness  
TM Bond<sup>®</sup> AR: 5-8 sqm/litre per coat

**Note:** Coverage figures given are theoretical - due to wastage factors and the variety and nature of substrates, practical coverage figures may be reduced, this will vary with site and application conditions.



## THERMAX

Thermax Limited  
Environment House, Plot No.90-92  
BG Block, MIDC, Bhosari,  
Pune 411 026, India.  
Tel: +91-20-67156000  
Fax: +91-20-27120206  
Customer Care: 18002090115 (India  
toll free)  
Email : [enquiry@thermaxglobal.com](mailto:enquiry@thermaxglobal.com)

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### Ahmedabad

Tel: +91-79-26575408 • Fax: +91-79-65577270

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### Bengaluru

Tel: +91-80-22371721 • Fax: +91-80-22371726

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### Chennai

Tel: +91-44-24303400 • Fax: +91-44-24353841

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### Delhi

Tel: +91-11- 46087200 • Fax: +91-11- 26145311

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### Hyderabad

Tel: +91-40-23253700 • Fax: +91-40-23253799

---

### Kolkata

Tel: +91-33-66070800 • Fax: +91-33-66070999

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### Mumbai

Tel: +91-22-67542222 • Fax: +91-22-22040859

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### Thermax World-wide

UK, USA, UAE, Germany, Belgium, Denmark,  
Russia, Saudi Arabia, Thailand, Malaysia,  
Bangladesh, Sri Lanka, China, Philippines,  
Peru, Chile, Kenya, Nigeria, Brazil, Indonesia

Website: [www.thermaxglobal.com](http://www.thermaxglobal.com)

## Thermax Business Portfolio

### Chemicals

### Absorption Cooling

### Air Pollution Control

### Boilers & Heaters

### Power

### Water & Waste Solutions

### Solar

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### Other Segments:

- Concrete Admixtures • Surface Treatments • Grouts & Anchors • Repair & Rehabilitation
- Protective Coatings • Industrial Flooring • Waterproofing • Sealants • Adhesives

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