

## Floor topping, trowel applied, high build epoxy resin system (5 mm thickness)

### Uses

Durafloor TF has been designed for the on-site manufacturing of a 5 mm thick Durafloor TF screed in environments where high resistance to mechanical and chemical attack is required. Typical areas of use include engineering plants, chemical plants, traffic aisles and food processing areas. It may be sealed with Durafloor N (Novolac) in areas of significant risk from chemical attack (see separate Technical Data Sheet).

### Advantages

- Suitable for application in food preparation areas
- Durable - provides long-term protection in heavy industrial environments
- Improves efficiency - seamless surface aids traffic flow and cleaning
- Good resistance to a wide range of industrial chemicals
- Tough - resists high impact and point loading

### Description

Durafloor TF Binder is a two-part low viscosity epoxy resin system to which Durafloor TF Fillers and a Durafloor colour pack can be added to produce the trowellable epoxy mortar (Durafloor TF) for the installation of a high performance industrial floor system.

Durafloor TF when laid, produces a matt, slightly textured anti-slip floor system.

Durafloor TF can be overcoated to provide different non-slip and sealed properties. The product can also be produced in a range of standard colours.

### Technical Support

Parchem offers a comprehensive range of high performance, high quality flooring, jointing and repair products for both new and existing floor surfaces. In addition, the company offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance.

### Properties

The values given below are average figures achieved for Durafloor TF in laboratory tests at 23°C. Actual values obtained on-site may show minor variations from those quoted.

#### Physical properties

<b>Compressive strength (BS 6319):</b>	50 MPa
<b>Flexural strength (BS 6319):</b>	17 MPa
<b>Cure time:</b>	Foot traffic: 24 hours Vehicular traffic: 48 hours Chemical: 7 days
<b>Pot life:</b>	30 minutes

#### Chemical properties

Durafloor TF has excellent resistance at ambient temperature to a wide range of industrial chemicals.

Note that it is especially important that spillage is cleared up since very much higher concentrations of chemicals may occur on evaporation.

### Maintenance

The service life of a floor can be considerably extended by good housekeeping. Regular cleaning of Durafloor TF may be carried out using a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures up to 60°C.

### Application Instructions

Durafloor TF should be installed by specialist applicators who must follow the application instructions. The following steps are involved in the application which would normally take place over a 3 - 5 day period.

#### Preparation

Correct surface preparation is essential to achieving bond between the substrate and the new floor. All concrete should be sound, clean, dry and free from contaminants. Hydro blasting, captive shot blasting or grit blasting equipment is necessary to ensure that adequate substrate preparation is achieved. On small areas, needle gunning or bush hammering is acceptable. The parent concrete should have a minimum compressive strength of 25 MPa and be free of any weak surface laitance.

#### Priming

All substrates on completion of the preparation are to be primed with Durafloor TF Binder or Nitomortar 903.

More than one coating may be required depending on the porosity of the substrate. For where high build applications are required on vertical systems seeding the wet primer with a suitable grit will prevent the screed coat from sliding.

# Durafloor® TF (Trowel Floor)

If more than 12 hours elapse prior to the application of Durafloor TF, re-prime the substrate. If more than 48 hours elapse, mechanically abrade the primed surface and re-prime.

## Mixing & Placing

### Primer - Durafloor TF Binder

Base resin must be mixed with the hardener component in the correct ratio of 3:1 by volume (Base : Hardener).

Using suitable measuring jugs and mixing vessel, add 3.0 litres of base resin to every 1.0 litre of hardener.

Mix thoroughly for a minimum of 3 minutes using a slow speed mechanical stirrer and suitable epoxy mixing paddle.

Apply Durafloor TF Binder to substrate with a quality lambs wool roller.

A wet film thickness of 150 microns minimum is required to ensure the necessary bond.

Ensure the prime coat is wet or tacky and NOT TACK FREE prior to commencement of the main application of Durafloor TF.

### Trowel Mix – Durafloor TF

Base resin must be mixed with the hardener component in the correct ratio of 3:1 by volume (Base : Hardener). To every 4.0 litres of mixed binder add 1 (0.5 kg) Durafloor colour pack and sufficient Durafloor TF fillers to provide a workable trowellable mix.

A suggested ratio is for every 4.0 litres of mixed Durafloor TF Binder add 1 colour pack and 40.0 kgs of the Durafloor TF fillers. Total yield based on this proportioning will be 23.5 litres (approx). Total yield based on full Durafloor TF 20L pack (including fillers & colour packs) is 117.5 litres (approx).

1. Stir both base resin and hardener components thoroughly before use.
2. Using suitable measuring jugs and mixing vessel, add 3.0 litres of base resin to every 1.0 litre of hardener. Add 1 colour pack (0.5kg) and mix thoroughly for a minimum of 3 minutes using a slow speed mechanical stirrer and suitable epoxy mixing paddle.
3. Add the Durafloor TF fillers and mix for a further 2 – 3 minutes until a uniform colour and consistency is achieved.
4. Once mixed, apply the Durafloor TF by spreading the material over the primed surface. Compact to achieve a dense 5 mm screed. Finish to desired texture with a steel trowel and allow to cure.

**Important:** As Durafloor TF Fillers are subject to naturally occurring colour variations, please ensure the same batch number is used on applications where colour consistency is critical.

## Overcoating

For applications where non-slip or chemical resistant properties need to be enhanced, one or two coats of the Durafloor range of epoxy coatings can be applied. This should be done within 3 days of laying the Trowel Floor.

## Joints

All existing expansion and movement joints should be followed through the new floor surface. Joints should be cleaned and prepared prior to installing the appropriate Parchem joint sealant. This will depend on the anticipated movement and chemical resistance requirements of the new floor. For further advice contact your local Parchem sales office.

## Cleaning

Durafloor TF Binder or Durafloor TF should be removed from tools and equipment with Solvent 10 immediately after use. Hardened material can only be removed mechanically.

## Limitations

Note: To ensure a uniform colour, use only components with identical batch numbers in the one application area or contact Parchem for advice.

Durafloor TF Binder or Durafloor TF should not be applied on to surfaces known to suffer or are likely to suffer from rising damp conditions or having a relative humidity of greater than 80%. Refer to Parchem for further advice if necessary.

Durafloor TF Binder or Durafloor TF should not be applied to asphalt, unmodified sand/cement screeds, PVC tiles or sheet. For information on the suitability of other substrates, consult your local Parchem sales office.

Durafloor TF Binder or Durafloor TF should not be installed at temperatures below 10°C.

## Supply

<b>Durafloor TF Binder:</b>	20 litre pack (15 litre Base and 5 litre Hardener)
<b>Durafloor TF Fillers:</b>	20 kg bag
<b>Solvent 10:</b>	4 and 20 litre drum

# Durafloor® TF (Trowel Floor)

## Coverage

<b>Durafloor TF Binder as a priming system:</b>	5 m <sup>2</sup> /litre
<b>Durafloor TF as a Trowel system:</b>	Refer mixing instructions for proportioning, 23.5 litres yield when 40 kg TF fillers used with 4 litres of mixed binder. 23.5 litres of mixed Durafloor TF will cover 4.7 m <sup>2</sup> at 5mm thickness
<b>OR:</b>	1 x Durafloor TF 20L pack (15L base & 5L hardener) + 5 x 0.5kg Durafloor Colour Packs + 10 x Durafloor TF Fillers 20kg = covers 23.5m <sup>2</sup> at 5mm thick.

The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrate, practical coverage figures will be reduced. Typically, an additional 10% should be allowed for surface irregularities and wastage although this will vary with site conditions.

## Specification Clause

### Heavy Duty Epoxy Floor Screed

The designated floor areas shall be surfaced with Durafloor TF using the Durafloor TF Binder System and Durafloor TF Fillers. The screed shall achieve a compressive strength of 50 MPa and a flexural strength of 17 MPa at 7 days. It shall be capable of accepting foot traffic at 24 hours and vehicular traffic at 48 hours.

## Storage

### Shelf life

Durafloor TF has a shelf life of 36 months if kept in a dry store in the original, unopened packs.

### Storage conditions

Store in dry conditions between 5°C and 30°C, away from sources of heat and naked flames, in the original, unopened packs. If stored at high temperatures the shelf life may be reduced.

### Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. 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.

