



# TFC 300

## TECHNICAL DATA

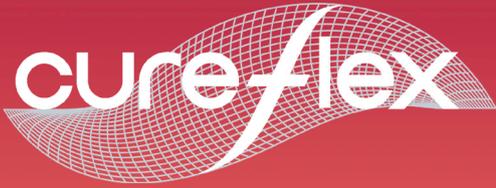
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### DESCRIPTION

Cureflex TFC 300 is a solvent free, 100% solids, aliphatic coating designed as an abrasion resistant topcoat for polyurea and polyurethane systems or as a stand-alone product over properly prepared substrates. Uses include industrial equipment, deck coatings, garage floors, industrial/commercial flooring, food processing plant walls/floors/ceilings, UV resistant overcoat. Cureflex TFC 300 features a 1:1 mix ratio (volume), is solvent free, has no flammability issues, minimal environmental impact, excellent colour and gloss retention and cures quickly.

### PHYSICAL PROPERTIES

Composition	Two-pack, 100% solids, polyaspartic
Volume solids (%)	100
Service temperature (°C)	Up to 100°C
Incidental contact (°C)	Up to 180°C
Mix ratio (by volume)	1:1
Curing time (hours)	Touch-dry 1 hour, foot traffic 2 hours
Pot life (minutes)	40
Shelf life (months)	12
Odour	Very low odour
Tensile strength (MPa)	17
Elongation (%)	73
Hardness (Shore A/Shore D)	90/50
Tear strength (Kg/cm)	56
UV resistance	No chalking, no cracking, no yellowing
Re-coating interval (days)	1 to 18 hours
Recommended relative humidity (%)	Between 20 and 90



# TFC 300

## TECHNICAL DATA

### PREPARATION & APPLICATION

The application details provide general procedures to be followed for all applications of the Cureflex TFC 300. When applying Cureflex TFC 300, proper equipment is essential. The main application tool for each step is a 270 mm epoxy roller cover with an adjustable roller cage. During the project the roller should be rolled dry every 10-18 m<sup>2</sup>. This will prevent the roller from becoming tacky and it will increase the life of the roller. After the initial roll it is important to back roll the floor. Back rolling is done to ensure even application and will help with breaking any balloons that may have formed from filling pinholes. On average a roller cover will do 45-90 m<sup>2</sup> before replacement.

Prior to application, proper surface preparation is required. Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, loose particles and rust.

#### *Consumption*

Apply between 0.08 and 0.25 mm wet film thickness per coat. Optimum wet film thickness will vary with project specifics.

#### *Mixing*

This is a two-component system. When mixing the material, use graduated plastic mixing containers. Each batch that is being mixed on a project, will require a new plastic mixing container, however, after the project is complete, the cured material can be pulled out of the containers and they can be reused.

First, mix Cureflex TFC 300 Part B thoroughly before use. Combine equal parts Cureflex TFC 300 Part A and Cureflex TFC 300 Part B by volume. If necessary, Cureflex TFC 300 may be thinned using Xylene or MEK. Use care when mixing to avoid incorporation of air. This process in total should take no more than 1-1/2 minutes. Mix only the volume used within the pot-life. For a concrete floor, best results are found by mixing enough material for 10 minutes of rolling after which another 10-minute-sized batch is mixed. On average this is 1-3 L of mixed material and is project dependent. After material is mixed, it should be poured out in a ribbon across the area that will be rolled. The above amount will be enough material to pour out 2-4 ribbons. Do not use a roller tray.

It should be noted that if these ribbons are a non-skid coat, the aggregate has a propensity to settle. If the material is not rolled out sufficiently to pick up and spread this settled aggregate, it can result in a ghost where the ribbon was poured, caused from an abundance of non-skid remaining where the material was poured out.

Allow at least 2 hours before light foot traffic and 24 hours before return to service. Cure time is very dependent on temperature and humidity. In cold dry conditions the cure time will be significantly prolonged.

#### *Technical Tip*

The reason we don't use a roller tray and always use a fresh mixing container is because each mixed batch can catalyse fresh material which can drastically reduce the pot life of newly mixed material.



# TFC 300

## TECHNICAL DATA

### PREPARATION & APPLICATION Cont.

#### **Non-Skid Finishing**

Cureflex TFC 300 can be used to produce a durable non-skid finish with three optional textures. NS-75 or NS-100 are recommended for most flooring and decking applications. They provide adequate traction and easy to clean surface. For increased traction NS-50 or NS-20 can be employed. NS-20 will provide the most aggressive traction but will make cleaning more difficult. The desired non-skid additive should be added to the Cureflex TFC 300 Part B and thoroughly blended prior to mixing with the Cureflex TFC 300 Part A. Apply at a maximum wet film thickness of 0.1 mm for best results. If wet film thickness is too high the non-skid effect will be lost and surface appearance will not be uniform. If higher film build is required apply multiple thin coats for best performance and uniform appearance. Optionally, the non-skid coat can be applied as the final coat only. See the table below for typical addition level of NS.

	grams	mL
NS-20 (coarse grade)	200	525
NS-50 (medium grade)	200	525
NS-75 (50+100)	200+400	525+1050
NS-100 (fine grade)	400	1050

#### **Colour-Chip Flooring**

Colour-chips can be used in conjunction with the Cureflex TFC 300 to create an attractive and durable surface coating. It is recommended that the coatings contractor perform in-house testing and evaluation to determine the best technique for their specific application. For general use, refer to the following procedure.

##### *Step 1*

Apply Cureflex TFC 300 colour coat at approximately 7 m<sup>2</sup> per L to provide a uniform colour base. Colour choice will depend on the colour-chip collection. Allow surface to cure to tack free (approximately 1-2 hours).

##### *Step 2*

Apply a second coat of Cureflex TFC 300 colour coat at approximately 15 m<sup>2</sup> per L. Broadcast colour-chips uniformly to surface. The amount of colour-chips used will depend on the desired effect. Allow surface to cure approximately 1-2 hours.

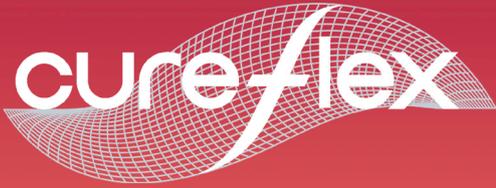
##### *Step 3*

Remove excess colour-chips and lightly scuff surface to produce a semi-smooth appearance. Broom or vacuum surface so it is free of any loose particles and dust.

##### *Step 4*

Apply Cureflex TFC 300 clear coat at approximately 3.5 m<sup>2</sup> per L. Apply additional coats if a very smooth surface is desired.

These procedures are not intended as specific application instructions. The amount used and final appearance will depend on the specific project undertaken. Proper surface preparation, job-site conditions and adequate safety precautions are the responsibility of the coatings contractor.



# TFC 300

## TECHNICAL DATA

### PREPARATION & APPLICATION Cont.

#### **Accent Colour Flooring**

Cureflex TFC 300 accent colours can be used to create a durable, granite like, attractive floor finish. Accent colours can be used as an alternative to colour chips where a more durable and less textured finish is desired. For general use, refer to the following procedure.

##### *Step 1*

Apply Cureflex TFC 300 colour coat at approximately 7 m<sup>2</sup> per L to provide a uniform colour base. Colour choice will depend on the splash accent colour selection. Allow surface to cure to tack free (approximately 1-2 hours).

##### *Step 2*

Apply first Cureflex TFC 300 splash accent colour using splatter-gun at desired setting. Size and concentration of splash accent colours will depend on splatter-gun settings and speed of each pass. Allow the surface to cure for approximately 1-2 hours.

##### *Step 3*

Apply traditional splash accent colours as in STEP 2, two or three splash accent colours are used in typical applications. Allow 1-2 hours cure time after final splash accent colour.

##### *Step 4*

Apply Cureflex TFC 300 NS-100 clear coat at approximately 7 m<sup>2</sup> per L.

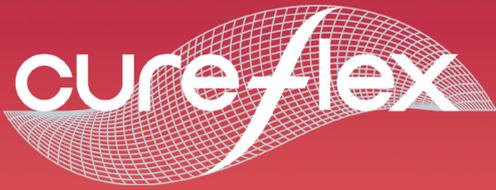
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#### **Cleaning Up**

Reusable tools should be cleaned carefully with MEK before curing.

#### **Shelf Life**

Shelf life of sealed Cureflex TFC 300 in its original container is 12 months. Store in a cool and dry place for product integrity. Store in tightly sealed containers to protect from moisture and foreign materials. Moisture contamination will result in significant reduction in pot-life.



# TFC 300

## TECHNICAL DATA

### IMPORTANT NOTICES

Cureflex TFC 300 has been developed to protect and extend the longevity of the floor surface/substrate to which it has been applied, however as Demtech Pty Ltd has no control over substrate preparation and Cureflex TFC 300 installation, Demtech Pty Ltd cannot guarantee the number of months/years Cureflex TFC 300 will provide in extending the longevity of the floor/substrate. When cured Cureflex TFC 300 provides a gloss finish which may vary subject to drying conditions, application techniques and final finished film thickness.

#### **General**

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