

## Abrasion and chemical resistant decorative epoxy floor screed

### Product Description

TAL DECOQUARTZ TF is a three component, trowel applied 3 to 6mm thick epoxy floor screed that produces a non slip, abrasion and chemically resistant floor that is decorative in appearance. It is supplied with a clear epoxy resin and a wide range of colored quartz aggregates. By combining the various colors many individual color combinations can be produced.

A high temperature resin is available in area subject to temperature up to 110°C.

### Advantages

- Meets SCAQMD Rule 1113 & LEED VOC Limits
- Formaldehyde free
- High abrasion resistance
- Resistant to a wide range of chemicals
- Slip resistant
- Available in a wide range of colors

### Uses

TAL DECOQUARTZ TF can be used in retail and commercial application to provide a floor finish able to withstand mechanical abrasion chemical resistant such as

- Food preparation areas
- Supermarkets
- Showrooms
- Restaurants

### Specification Compliance

SCAQMD Rule 1113  
LEED NC2009 IEQ 4.2

### Laboratory Test Data

Property	Typical Results
Compressive strength (ASTM C109)	>60MPa
Tensile strength (ASTM D638)	>8MPa
Flexural strength (ASTM C580)	>15MPa
Bond strength (ASTM D4541)	Failure in concrete
Abrasion resistance (ASTM D4060 1000g/1000r CS17)	<40mg
Impact resistance (ASTM D2794)	>19 Joules

The above results were obtained after 7 days cure.

### Service Temperature

Standard: -5 to +65°C  
High Temperature: -15 to +110°C

### Application Properties

Application thickness	3 to 6mm*		
Application temperature range	5 to 35°C		
Pot life	10°C	20°C	30°C
Standard	180 min	90 min	45 min
High Temperature	120 min	60 min	30 min

\* Use 6mm when subjected to thermal shock.

### Volatile Organic Content

VOC = <20 g/L

### Chemical Resistance

TAL DECOQUARTZ TF has good resistance to the following:

- Most common daily use acids
- All forms of grease
- Concentrated bleach
- Cleaning solutions
- Saturated sugar solution
- 10% Ammonia
- Vegetable and mineral oils
- 50% Caustic soda

### Colour

Any combination of the colors below are usually available ex-stock.

- RAL 9003 Signal White
- RAL 2002 Vermilion
- RAL 9004 Black
- RAL 8024 Beige Brown
- RAL 7044 Silk Grey
- RAL 1015 Light Ivory
- RAL 1017 Saffron Yellow
- RAL 5012 Light Blue
- RAL 6002 Leaf Green
- RAL 5023 Distant Blue

Most RAL colors can be produced to order (500 kg minimum order)

### Theoretical Coverage

TAL SF PRIMER: 10m<sup>2</sup>/L.  
TAL MT PRIMER: 5 to 6m<sup>2</sup>/L.  
TAL DECOQUARTZ TF: 3.75m<sup>2</sup> per 15L pack at 4mm.

### Packaging

TAL SF PRIMER: 5 and 15L packs  
TAL MT PRIMER: 5 and 15L packs  
TAL DECOQUARTZ TF: 5 and 15L pack

### Shelf Life

12 months when stored between 10 to 35°C under shade in dry conditions.

### Installation Guidelines

Epoxy flooring should only be carried out by experienced contractors. TAL provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting work. The information below is a summary intended for guidance only.

## Surface Preparation

The substrate must be structurally sound. Loose or unsound concrete should be removed and made good. Surfaces must be entirely free of oil, grease, paint, corrosion deposits, dust, laitance or other surface deposits. The surface should be prepared by captive blasting to produce a lightly exposed aggregate surface i.e. a ICRI CSP 4 or 5 surface profile. Any bug holes (blow holes) should be filled with TAL BUGFILL or TAL PRIMER FILLER (when using TAL MT PRIMER apply TAL BUGFILL or Primer Filler after priming).

## Moisture Testing

The concrete slab should be tested for moisture with the Rapid RH system following the procedure in ASTM F2170. If the humidity reading is greater than 80% then conduct moisture vapor emission rate (MVER) testing using the procedure in ASTM F1869. (Both test kits are available for purchase from TAL). If the MVER is under 3lbs/1000ft<sup>2</sup>/24h use TAL SF PRIMER. If the MVER is 3 to 5 lbs/1000ft<sup>2</sup>/24h use a single coat TAL MT PRIMER at 165 microns wft. If the MVER is 5 to 12 lbs/1000ft<sup>2</sup>/24h use two coats of TAL MT PRIMER at 200 microns wft per coat. In high risk areas or where a DPC is known that have been used use TAL VAPORSTOP HB.

## Priming

The base and hardener have to be mixed using a slow speed drill and approved mixing paddle until homogenous. The mixed primer should then be applied to the prepared substrate with a stiff brush or roller. Do not over apply or allow puddles of primer to form. If the primer is absorbed into the surface easily, it will be necessary to apply a second coat once the initial coat is tack-free. Immediately after application of the final primer coat broadcast TAL ANTISLIP GRAIN (M) on the surface of the primer at a rate of approximately 200 to 250g/m<sup>2</sup>. Allow the primer to cure for at least 12 hours before applying the next layer. Complete application of the next layer within 36 hours of priming.

## Mixing

Mixing should only be carried out using a forced action mixer such as a Mixit 25 (available for hire or purchase from TAL). Pre-mix the base component and then pour into the clean mixing vessel and, while stirring slowly, add the hardener component and mix for 1 minute. Once the base and hardener has been mixed, add the filler slowly and mix for a further 3 minutes.

## Application

To control level and surface finish the use of a screed box or screed bars fixed to the required thickness is highly recommended. Place and level the material then carry out initial finishing with a wooden trowel to create an open texture that will allow air release. Once this is done then compact using the same trowel and finish using a steel trowel to tightly close the surface. Do not use solvent as a troweling aid as it will destroy the resin structure. TAL TROWELEASY is recommended as a finishing aid. It is applied to the steel trowel to assist with finishing to produce a tight dense uniform finish free from trowel burn.

## Sealing

If the finishing has been carried out to a high standard then a sealer is not normally required. If the surface is required to be sealed then seal using the resin (base and hardener mixed together without filler) component of TAL DECOQUARTZ TF. TAL URASEAL WDS can also be used as a seal coat (2 coats required) see separate datasheet.

## Cleaning

Clean with TAL SOLVENT S before the product has cured.

## Limitations

Will change color when exposed to direct sunlight.  
Do not use solvent to finish the surface.  
Do not apply within 3°C of the dewpoint or if it is within 5°C of the dewpoint and dropping.  
Do not apply below 5°C or above 35°C.  
Avoid skin contact.  
Do not discard into the water system.