TAL EPOXYFLOOR TF

Issue Date
1/05/2012

Abrasion and chemical resistant self-levelling epoxy floor screed

Product Description
TAL EPOXYFLOOR TF is a three component, self smoothing epoxy floor topping that produces an extremely dense, durable, abrasion and chemically resistant floor.

A fast cure grade is available that can accept pedestrian traffic after 3h at 25˚C and vehicular traffic after 4h at 25˚C.

Composition
TAL EPOXYFLOOR TF is a three component premeasured system consisting of a base, hardener and filler containing acid resistant graded silica sands.

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

Uses
TAL EPOXYFLOOR TF is used in industrial and commercial situations to provide a floor finish able to withstand mechanical abrasion and the spillage of aggressive chemicals in situations such as:
- Food and beverage plants
- Heavy engineering plants
- Chemical handling and processing areas
- Oil refineries
- Workshops
- Battery rooms

Specification Compliance
SCAQMD Rule 1113
LEED NC2009 IEQ 4.2
EFNARC Type 6A (>4mm) & Type 8A (>6mm)
FeFRA Type 6

Volatile Organic Content
VOC = <10g/L

Colours
RAL 6027 Light Green
RAL 5017 Traffic Blue
RAL 3002 Carmine Red
RAL 1001 Beige
RAL 7035 Light Grey
Others colours available on request.

Laboratory Test Data

Property	Typical Results
Compressive strength (ASTM C109)	>70MPa
Flexural strength (ASTM C580)	>16MPa
Tensile strength (ASTM D638)	>7MPa
Impact resistance (ASTM D2794)	>19 Joules
Abrasion resistance (ASTM D4060)	<40mg (CS17)
Bond strength (ASTM D4541)	Failure in concrete

Above results were obtained after 7 days cure at 35°C.

Application Properties

Application thickness	3 to 10mm (typically 5mm) 120 to 400 mils (typically 200mils)		
Application temperature range	5 to 35C (41 to 95F)		
Pot life	20C (68oF)	25C (77F)	30C (86F)
Standard	60 min	45 min	30 min
Fast cure	20 min	15 min	10 min

Chemical Resistance
TAL EPOXYFLOOR TF has good resistance to the chemicals:
50% Sulphuric acid
Oils
Concentrated bleach
Petrol
Saturated sugar solution
Greases
Saturated urea solution
10% Ammonia
White spirit
50% Caustic soda
Xylene

Theoretical Coverage
TAL SF PRIMER: 10m²/L
TAL EPOXYFLOOR TF: 2.4m² per 12L pack at 5mm (200mils)

Packaging
TAL SF PRIMER: 1, 5 and 15L kits
TAL EPOXYFLOOR TF: 30kg kits

Shelf Life
12 months when stored between 10 to 25˚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.

Important information common to all technical data sheets in this product guide pertaining to health and safety, authorised technical specialists and warranties is published on page 1.

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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 TAL 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^2/24h use TAL SF PRIMER. If the MVER is 3 to 5 lbs/1000ft^2/24h use a single coat TAL MT PRIMER at 165 microns wft. If the MVER is 5 to 12 lbs/1000ft^2/24h use two coats of TAL MT PRIMER at 200 microns wft per coat.

Priming
The base and hardener have to 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^2. 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 used 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.

Overcoating
It is recommended that TAL EPOXYFLOOR TF is overcoated within 24 hours (12 hours for Fast Cure Grade) with two coats of TAL EPOXYSEAL FLR55 or WDE (see separate datasheets).

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 below 5˚C or above 35˚C.
Avoid skin contact.
Do not discard into the water system.
Not for use were service temperature exceeds 60˚C.
Protect from chemical and water spillage until fully cured

ULTRA LOW VOC

LEED® VOC Compliant

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