

Abrasion and chemical resistant self-leveling epoxy floor

Product Description

TAL EPOXYFLOOR SL1 is a three component, self levelling smoothing epoxy floor topping that produces an extremely dense, durable, abrasion and chemically resistant floor. It can be supplied either with a pigmented base or with a neutral color base with separate color pack. It can be used at 1 to 1.5mm thick.

Advantages

- Meets SCAQMD Rule 1113 & LEED VOC Limits
- Formaldehyde free
- High abrasion resistance
- Fast application
- Easy to clean finish
- Resistant to wide range of chemicals
- Does not support growth of bacteria, fungi or micro-organisms
- Available in a range of colors

Uses

TAL EPOXYFLOOR SL1 is used in industrial and commercial situations to provide an easy-to-clean floor finish able to withstand mechanical abrasion and the spillage of aggressive chemicals in locations such as:

- Food and beverage plants
- Pharmaceutical facilities
- Kitchens and laundries
- Hospitals
- Clean rooms
- Chemical handling and processing areas

Specification Compliance

SCAQMD Rule 1113
LEED NC2009 IEQ 4.2
FDA CFR 21 Section 175.300

Fire Performance

- UK Building Regulations (Document B): Class O
- BS 476 Part 7: Class 1 Surface Spread of Flame

Volatile Organic Content

VOC = <10g/L

Colours

RAL 7035 Light grey
RAL 7042 Traffic grey A
RAL 7043 Traffic grey B
RAL 7001 Silver grey
RAL 1017 Saffron yellow
RAL 6017 May green
RAL 3002 Carmine red
RAL 5017 Traffic blue
RAL 9001 Cream
RAL 1002 Sand yellow

Laboratory Test Data

Property	Typical Results
Compressive strength (min) (ASTM C109)	>60MPa
Flexural strength (ASTM C580)	>35MPa
Tensile strength (ASTM D638)	>15MPa
Impact resistance (BRE test)	Nil
Surface spread of flame (BS476)	Class 0
Di electric strength (5kVDC/60s)	Pass
DC insulation resistance (2.5kVDC/100 megaohms)	Pass

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

Application Properties

Application temperature range	5 to 35°C
Pot life at 25°C	45 minutes

Chemical Resistance

TAL EPOXYFLOOR SL1 has good resistance to the following:

- 10% Lactic acid
- Concentrated bleach
- Saturated sugar solution
- Saturated urea solution
- Oils
- Petrol
- Greases
- 10% Ammonia

Theoretical Coverage

TAL SF PRIMER: 10m² per liter at 100 microns wft.
TAL MT PRIMER: 5m² per liter at 200 microns wft.
TAL EPOXYFLOOR SL1: 14.3m² per 20kg pack at 1mm

Packaging

TAL EPOXYFLOOR SL1: 20kg kits.
TAL SF PRIMER: 5 and 15 liter kits.

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. If substrate is not level or is uneven, level using TAL LEVELCEM HD.

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/1000ft²/24h use TAL SF PRIMER. If the MVER is 3 to 5 lbs/1000ft²/24h use a single coat TAL MT PRIMER at 165 microns wft. If the MVER is 5 to 12 lbs/1000ft²/24h 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. Allow the primer to become tack-free before application of the layer. Apply next layer within 24 hours of priming.

Mixing and Application of TAL EPOXYFLOOR SL1

Both of the base and hardener components should be briefly stirred to ensure that any settlement products are fully suspended. Mixing should be carried out using a forced action mixer such as a Mixit 25 (mixers are available to purchase or rent from TAL). Mix the components until homogenous. Spread the mixed product onto the tack-free primer using a notched vee rake followed by a pin leveller set to achieve the required thickness. Immediately after spreading, roll using a spiked roller to release trapped air and remove trowel marks. Rolling should be completed within 20 minutes.

Cleaning

Tools should be cleaned immediately after use and before the resin sets, using a TAL SOLVENT S. Once the resin has set, it can only be removed by mechanical means.

Limitations

Will change color when exposed to direct sunlight. If any dust is present during application "fish eyes" may occur.
Do not use solvent to finish the surface.
Do not be 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.
Protect from chemical and water spillage until fully cured

