

# Fusion

## Concrete look and feel, hybrid technology flooring

### Product Description

Fusion is a three component, self smoothing hybrid technology floor topping that produces a concrete look finish.

### Advantages

- Meets SCAQMD Rule 1113 & LEED VOC Limits
- Formaldehyde free
- Environmentally friendly, low VOCs
- Resistant to wide range of chemicals
- Lightweight

### Uses

Fusion is used in industrial and commercial situations to provide an easy-to-clean floor finish in locations such as:

- Commercial buildings
- Pharmaceutical facilities
- Hospitals

### Laboratory Test Data

| Property             | Typical Results |
|----------------------|-----------------|
| Compressive strength | 50MPa           |
| Flexural strength    | 12MPa           |
| Tensile strength     | 8MPa            |

Above results were obtained after 28 days cure at 77F (25C).

### Application Properties

|  |                     |
|--|---------------------|
| Application thickness                            | 2 to 6mm            |
| Application temperature range                    | 10 to 35C           |
| Pot life at 20C (68F)<br>X-Prime MT100<br>Fusion | 60 mins<br>120 mins |

### Volatile Organic Content

X-Prime MT100: <10g/L

Fusion: <10g/L

### Service Temperature

0 to 65C

### Specification Compliance

SCAQMD Rule 1113

LEED NC2009 IEQ 4.2

FDA CFR Section 175.300

FeFRA Type 5 MD/HD at 2mm

### Chemical Resistance

Fusion has good resistance to the following chemicals:

- Aqueous solutions of salts
- Alkali solutions
- Concentrated bleach
- Saturated sugar solution
- Saturated urea solution
- Oils
- Greases

### Theoretical Coverage

X-Prime MT100: 5 to 7m<sup>2</sup>/L.

Fusion: 7.5m<sup>2</sup> per 15L pack at 2mm WFT

### Packaging

X-Prime MT100: 15L packs.

Fusion: 15L packs.

### Shelf Life

12 months when stored at below 35C in a frost-free, dry and shaded area.

### Installation Guidelines

Epoxy flooring should only be carried out by experienced contractors. X-Calibur 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 X-Shield BugFill. If substrate is not level or is uneven, level using X-Tech LevelCem HD or X-Tech EpoxyFloor SLU.

## Moisture Testing

The concrete slab should be tested for moisture vapor emission rate (MVER) testing using the procedure in ASTM F1869. (test kits are available for purchase from X-Calibur). If the MVER is over 15lbs/1000ft<sup>2</sup>/24h then contact X-Calibur for guidance.

## 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 next layer. Apply next layer within 24 hours of priming. Alternatively X-Tech Anti Skid grains can be spread into the primer to produce key for the next layer.

## Mixing and Application of Fusion

Base and hardener 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 X-Calibur). Mix the base and hardener until a uniform color is achieved. Add the filler slowly during mixing and mix for a further 2 mins. After mixing, place through a heavy duty sieve to ensure that any foreign body in the filler is not transported to the floor. 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, vigorously roll using a spiked roller to release trapped air and remove trowel marks. Rolling should be completed within 20 minutes. Allow to cure for one hour before attempting to produce any concrete effects. Then allow to cure for 24hrs then apply one or two coats of X-Tech PolishCoat with a microfiber mop to ensure easy cleanability.

## Cleaning

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

## Limitations

Will change color when exposed to direct sunlight.  
Do not be apply within 3C of the dewpoint or if it is within 5C of the dewpoint and dropping.  
Do not apply below 10C or above 35C.  
Avoid skin contact.  
Do not discard into the water system.  
Protect from chemical and water spillage until fully cured.

If any dust is present during application "fish eyes" may occur.

## Health and Safety

This product is for industrial use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product. E-mail [taltech@norcrossa.com](mailto:taltech@norcrossa.com) or call 0860 000 825 for a copy of the MSDS.

## Authorized Technical Specialist

Please note that only TAL X-Calibur Authorized Technical Specialists are permitted to change any of the information in this data sheet or to provide written recommendations concerning the use of this product.

## Datasheet Validity

TAL X-Calibur make modifications to its product datasheets on a continuous basis. to ensure you have the latest version, e-mail [taltech@norcrossa.com](mailto:taltech@norcrossa.com) or call 0860 000 825 to ensure you have the latest version.

## Important Notice

TAL believes the information on this sheet to be correct - but does not guarantee its accuracy or completeness. Conduct your own tests of this product to determine its suitability for intended use. User assumes all risks and liability during testing and use of this product. The only obligation of TAL shall be to replace any of this product proved to be defective due to manufacturing defects. TAL shall not be liable for any injury, loss or damage, direct or inconsequential, relating to the use or inability to use this product. Except as expressly provided above, all products sold and samples furnished without any warranty of merchant ability or any other warranty, express or implied.

Contact the TAL X-Calibur Technical Advice Centre on 0860 000 TAL(825), or e-mail [taltech@norcrossa.com](mailto:taltech@norcrossa.com)  
Johannesburg+27 (0)11 206 9700 Cape Town +27 (021) 386 1810 Durban +27 (031) 579 2263  
[www.x-calibur.co.za](http://www.x-calibur.co.za) [www.tal.co.za](http://www.tal.co.za)

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