

Formerly known as
X-Shield EpoxyFloor TF

Technical Data Sheet

X-Tech EpoxyFloor TF

High strength trowelable floor

Product Description

X-Tech EpoxyFloor TF is a three component, trowel applied epoxy floor screed 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 25C and vehicular traffic after 4h at 25C.

Composition

X-Tech EpoxyFloor TF is a three component pre-measured 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

X-Tech 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
ASTM C109 & C580

Volatile Organic Content

VOC = <10 g/L

Color

RAL 6027 Light Green
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
Impact resistance (ASTM D2794)	>10 Joules
Abrasion resistance (ASTM D4060)	<40mg (CS17)
Bond strength (ASTM D4541)	Failure in concrete

The above results were obtained after 7 days cure.

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 (68°F)	25C (77°F)	30C (86°F)
Standard	60 min	45 min	30 min
Fast cure	20 min	15 min	10 min

Service Temperature

10 to 70C

Chemical Resistance

X-Tech 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

X-Tech EpoxyFloor TF: 2.8m² per pack at 5mm

Packaging

X-Tech EpoxyFloor TF: 26.5Kg pack

Shelf Life

12 months when stored between 10 to 25C under shade in dry conditions.

Installation Guidelines

Epoxy flooring should only be carried out by experienced contractors. NCC 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 or X-Tech Primer Filler (when using X-Prime MT100 apply 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. If the MVER is under 3lbs/1000ft²/24h use X-Prime SF. If the MVER is 3 to 5 lbs/1000ft²/24h use a single coat X-Prime MT100 at 165 microns wft. If the MVER is 5 to 12 lbs/1000ft²/24h use two coats of X-Prime MT100 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 X-Tech Anti Skid Grain (M) on the surface of the primer at a rate of approximately 200 to 250g/m². 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. 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. X-Tech 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.

Cleaning

Clean with X-Shield 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 5C (41F) or above 35C (95F).
Avoid skin contact.
Do not discard into the water system.
Not for use were service temperature exceeds 60C.
Protect from chemical and water spillage until fully cured

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. The MSDS can be obtained via our website www.ncc.com.eg

Authorized Technical Specialist

Please note that only NCC X-Calibur Authorized Technical Specialists ('ATs') are permitted to change any of the information in this data sheet or to provide written recommendations concerning the use of this product. Visit www.ncc.com.eg for a full list of NCC X-Calibur ATs.

Datasheet Validity

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