

Formerly known as
X-Shield EpoxyFloor TU

Technical Data Sheet



30880715

X-Tech EpoxyFloor TU

High strength load bearing trowelable base layer

Product Description

X-Tech EpoxyFloor TU consists of special resins and graded aggregates formulated to withstand chemical attack and impact. The product is supplied as a three component system. X-Tech EpoxyFloor TU provides a surface ready to receive applications of other X-Calibur flooring systems.

Advantages

- Meets SCAQMD Rule 1113 & LEED VOC Limits
- Formaldehyde free
- Cost effective
- High strength
- Durable

Uses

Provides an economical method of levelling floors prior to laying epoxy screed, toppings or coatings such as X-Tech EpoxySeal FLR55, X-Tech EpoxySeal FLR100 and X-Tech EpoxyFloor SL.

Specification Compliance

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

Laboratory Test Data

The values given below are typical figures achieved in laboratory tests. Actual values obtained on-site may show minor variations from those quoted.

Property	Typical Results at 35C
Compressive strength (BS 6319)	>65 N/mm ² at 7d
Flexural strength (BS 6319)	>15 N/mm ² at 7d
Tensile strength (BS 6319)	>10 N/mm ² at 7d
Water absorption (BS 1881)	Nil

Application Properties

	10C	20C	30C
Overcoating time	24 to 48 hrs	18 to 36 hrs	12 to 24 hrs
Full cure	14 days	7 days	5 days
Pot life	300mins	100 mins	60 mins

Fire Performance

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

Service Temperature

0 to 65C

Volatile Organic Content

VOC = <10 g/L

Theoretical Coverage

2.8 m² / pack at 5mm thickness.

Packaging

X-Tech EpoxyFloor TU : 12L packs
X-Shield Solvent S: 5L packs.
X-Prime SF: 5 and 15L packs
X-Prime MT100: 5 and 15L packs.

Shelf Life

X-Tech EpoxyFloor TU has a shelf life of 18 months when stored in a dry place below 35C in its original, unopened packs.

Installation Guidelines

X-Tech EpoxyFloor TU should be applied by experienced flooring crews. 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. (Both test kits are available for purchase from X-Calibur). 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

Prime with X-Prime SF or X-Prime MT100 and allow to dry before applying X-Tech EpoxyFloor TU. 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 polyurethane squeegee and back rolled with a short hair roller (X-Calibur velvet roller or similar). 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

It is important that X-Tech EpoxyFloor TU is mixed correctly.

Suitable mixing equipment must be used, such equipment being defined as a X-Calibur Mixing Paddle (MR3), or forced action mixers such as Cretriangle or similar.

Empty the entire contents of the resin hardener component into the can containing the resin base component and mix until homogeneous. Place the mixed resin components into the mixing vessel and while mixing slowly add the fillers. Mixing of all components shall continue for a further 3 to 5 minutes, until such time that a homogenous mix is achieved.

Application

The mixed X-Tech EpoxyFloor TU should be spread to uniform thickness on the prepared surface using either screed box or trowel. The material must be applied within the pot life after mixing (see "Properties"). After this time unused material should be discarded.

Overcoating

Overcoating of the X-Tech EpoxyFloor TU with any other X-Calibur floor system should be within the open time of the product (see properties).

Expansion Joints

Expansion joints in the existing substrate should be continued through the X-Tech EpoxyFloor TU and any subsequent topping, and filled to the required level with a suitable sealant - contact the local X-Calibur office for further details.

Design Criteria

X-Tech EpoxyFloor TU is designed for application in the

range of 4 to 20mm. Greater thicknesses can be achieved by the use of other products, consult the local X-Calibur office for more details.

Substrates should be surface dry and not suffer, or be likely to suffer, from rising dampness. If necessary, suitable damp-proof membranes should be installed to prevent this. Substrates should not have a moisture content greater than 5% at any time during the installation.

Cleaning

All tools and equipment should be cleaned immediately after use with X-Shield Solvent S.

Limitations

May change color when exposed to direct sunlight.
Do not use in immersed conditions.
Do not be apply within 3C of the dewpoint or if it is within 5C of the dewpoint and dropping.
Avoid skin contact.
Do not discard into the water system.
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.x-calibur.us

Authorized Technical Specialist

Please note that only X-Calibur Authorized Technical Specialists ('ATSS') 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.x-calibur.us for a full list of X-Calibur ATSS.

Datasheet Validity

X-Calibur makes modifications to its product datasheets on a continuous basis. Please check the datasheet update section on www.x-calibur.us to ensure you have the latest version.

Warranties

X-Calibur supplies products that comply with the properties shown on the current datasheets. In the unlikely event that products supplied are proved not to comply with these properties, then we will replace the non-compliant product or refund the purchase price. X-Calibur does not warrant or guarantee the installation of the products as it does not have control over the installation or end use of the products. Any suspected defects must be reported to X-Calibur in writing within five working days of being detected. X-Calibur Construction Chemistry Inc. **makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties express or implied.** X-Calibur Construction Chemistry Inc. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.