

# X-Tech UraFloor CS

Heavy duty polyurethane screed and mortar for cold stores



90040515

## Product Description

X-Tech UraFloor CS is a heavy duty polyurethane based floor screed and mortar designed to provide excellent resistance to abrasion, chemical attack and thermal shock and that been specifically developed for use in cold stores and freezer rooms.

## Advantages

- Meets SCAQMD Rule 1113 & LEED VOC Limits
- Formaldehyde free
- High durability
- Resistant to abrasion, impact and chemical attack
- Seamless and hygienic finish
- Contains a unique antimicrobial additive
- Excellent chemical resistance
- Resistant to thermal shock
- Low odour during installation

## Typical Uses

X-Tech UraFloor CS is used in heavy duty applications in cold store, freezer and other sub zero applications.

## Specification Compliance

SCAQMD Rule 1113  
LEED NC2009 IEQ 4.2

## Laboratory Test Data

Property	Typical Result
<b>Compressive strength (ASTM C109)</b>	70 MPa
<b>Tensile strength (ASTM D638)</b>	14 MPa
<b>Flexural strength (ASTM C580)</b>	20 MPa
<b>Impact resistance (ASTM D2794)</b>	No indentation
<b>RRL Slip resistance (ASTM F609)</b>	0.99 Dry 0.80 Wet

## Volatile Organic Content

VOC = <50 g/L

## Theoretical Coverage

9 L/m<sup>2</sup> at 9mm thick  
12 L/m<sup>2</sup> at 12mm thick

An appropriate wastage factor must be applied to the above to take account of product wastage and surface condition.

## Application Properties

<b>Service temperature</b>	-45 to 105C
<b>Application temperature (mixed product)</b>	5 to 30C
<b>Recommended thickness</b>	9 to 12mm
<b>Pot life</b>	60 min at 20C
<b>Light traffic</b>	16h at 20C
<b>Heavy duty traffic</b>	48h at 20C
<b>Full cure</b>	5d at 20C

**Note:** for less extreme applications the product can be applied at 5mm thick. Please contact X-Calibur for more information.

## Fire Performance

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

## Service Temperature

-45 to 105C

## Chemical Resistance

Excellent resistance to organic and inorganic acids, alkalis, fuel and hydraulic oils, aromatic and aliphatic solvents and all food products and cleaning chemicals used in the food industry.

## Colors

RAL 7035 - Light grey                      RAL 3002 - Carmine Red  
Most RAL colors can be supplied at no extra charge.

## Packaging

X-Prime SF & X-Prime MT100: 1, 5 & 15L packs  
X-Tech UraFloor CS: 12L packs  
X-Shield BugFill: 5kg packs  
X-Tech TrowelEasy: 1L cans  
X-Tech Anti Skid Grains: 25kg bags

## Shelf Life

12 months when stored between 10 to 35C under shade in dry conditions.

## Application Guidelines

X-Tech UraFloor CS should be applied by experienced coating 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/1000ft<sup>2</sup>/24h use X-Prime SF. If the MVER is 3 to 5 lbs/1000ft<sup>2</sup>/24h use a single coat X-Prime MT100 at 165 microns wft. If the MVER is 5 to 12 lbs/1000ft<sup>2</sup>/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/m<sup>2</sup>. 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 X-Calibur). Small areas can be mixed using a slow speed drill and approved mixing paddle. 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.

## Application - Cold Storage areas

Refer to Technical Note 008.12 for information.

## Sealing

If the finishing has been carried out to a high standard then a sealer is not normally required. If the surface is required to be sealed then seal using the resin (base and hardener mixed together without filler) component of X-Tech UraFloor CS. Apply at a coverage of 10 to 15m<sup>2</sup>/L.

## Cleaning

Clean with X-Shield Solvent S before the product has cured.

## Limitations

Failure to compact the product correctly may result in air blisters appearing on the surface

For area subject to steam cleaning minimum thickness should be 10mm.

Maximum moisture content of substrate 10%.

Do not be apply within 3C of the dew point or if it is within 5C of the dew point and dropping.

## 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](http://www.x-calibur.us).**

## Authorized Technical Specialist

Please note that only 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.x-calibur.us](http://www.x-calibur.us) for a full list of X-Calibur ATs.

## Datasheet Validity

X-Calibur makes modifications to its product datasheets on a continuous basis. Check the current datasheet section on [www.x-calibur.us](http://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.