

# Ucrete TZ

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## Heavy Duty Polyurethane Terrazzo Floor Finish

### DESCRIPTION OF PRODUCT

Ucrete TZ is a unique HD Polyurethane resin floor with exceptional resistance to aggressive chemicals, heavy abrasion and thermal shock.

Ucrete TZ provides a smooth protective floor finish suitable for applications in predominantly dry environments.

It is dense and impervious providing the ideal floor finish for applications in pharmaceutical production facilities including process areas, clean room, laboratory, packing hall and warehouse applications and wherever a highly attractive, robust, long lived floor is required.

Ucrete Industrial Flooring has been widely used throughout industry for more than 40 years, many of the older floors are still in service. A detailed project reference list is available upon request

### FEATURES AND BENEFITS

- Expert installation by fully trained licensed applicators
- Suitable for application on to 7 day old concrete and 3 day old polymer screeds
- Hygienic and easy to clean
- Non-tainting
- Highly attractive terrazzo appearance
- Very long life

### PERFORMANCE DATA

#### AIR QUALITY

Ucrete has been awarded the Indoor Air Comfort Gold Label following extensive VOC emission chamber testing and auditing of quality management and production control procedures.

This demonstrates that Ucrete is an extremely clean product without any volatile compounds that might taint food-stuff or affect the well-being of personnel.

All Ucrete grades give very low emissions and conform to all the emissions requirements for indoor flooring systems in Europe including AgBB in Germany, Afsset in France, where they are rated A+ for VOC emissions (the cleanest rating), and M1 in Finland.

For further information please contact your local Master Builders Solutions representative

### TEMPERATURE RESISTANCE

The Ucrete TZ resins do not start to soften until temperatures above 130°C are exceeded. Specifications are available that are fully serviceable up to 130°C and resistant to occasional spillage up to 150°C.

Correctly installed, Ucrete TZ can withstand regular and routine discharges of boiling water.

Suitable for freezer temperatures down to -40°C

### CHEMICAL RESISTANCE

Ucrete TZ offers exceptional resistance to a wide range of chemical aggressors. For example Ucrete is resistant to spillages of the following commonly encountered classes of chemicals:

Most dilute and concentrated organic acids such as Acetic acid, Lactic Acid, Oleic Acid and Citric Acid, as commonly found in the food industry,

Dilute and concentrated acids: hydrochloric, nitric, phosphoric and sulphuric.

Dilute and concentrated alkalis, including sodium hydroxide to 50% concentration

Animal fats and vegetable oils, sugars flavourings and essences.

Mineral oils, kerosene, gasoline and brake fluids

A wide range of organic solvents including Methanol, Xylene Ethers and Chlorinated solvents

Note: some staining or discolouration may occur with some chemicals, depending upon the nature of the spillage and the standards of house keeping employed.

Extensive chemical resistance tables are available in the separate data sheet 'A guide to the chemical resistance of Ucrete Flooring'.

For detailed information, please contact your local Master Builders Solutions office for guidance.

### NON TAINING

Ucrete TZ is non tainting from the end of mixing, as tested by the Campden Technology Ltd.

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| Typical Properties                                     |   |
|--|---|
| Density  | 2090 kg/m <sup>3</sup>                  |
| Compressive strength (EN13892-2)                       | 52 - 57 MPa                             |
| Tensile strength (BS6319 Part 7)                       | 6 MPa                                   |
| Flexural strength (EN13892-2)                          | 14 MPa                                  |
| Compressive modulus (BS 6319:Part 6)                   | 3250 MPa                                |
| Adhesive strength to concrete (EN13892-8)              | concrete failure                        |
| Coefficient of thermal expansion (ASTM C531:Part 4.05) | 2.4 x 10 <sup>-5</sup> °C <sup>-1</sup> |
| Fire Testing (EN13501: Part 1)                         | B <sub>FL</sub> – S <sub>1</sub>        |

**Note:-** Samples cured for 28 days at 20 °C

### IMPACT RESISTANCE

With high mechanical strengths and a low elastic modulus, Ucrete TZ is very resilient and able to withstand severe impact loads. While no material is indestructible and surface chipping may occur, brittle modes of failure resulting in cracking and disbondment are unknown with Ucrete floors

### CLEANING & HYGIENE

Regular cleaning and maintenance will enhance the life and appearance of any floor. Ucrete TZ is readily cleaned with industry standard cleaning chemicals and equipment. Please consult your local cleaning chemical or equipment supplier.

Detailed cleaning guidelines are available from your local Master Builders Solutions office.

### PERMEABILITY

Ucrete TZ exhibits zero absorption when tested to CP.BM2/67/2.

### SLIP RESISTANCE

Ucrete TZ floors have a coefficient of friction as determined to EN 13036 Part 4 with 4S rubber on the wet floor as follows:

Ucrete TZ            35 - 40

Optimum slip resistance can only be maintained with regular cleaning.

### COLOURS

Ucrete TZ is available in eight standard colours:

|      |        |       |             |
|------|--------|-------|-------------|
| Red  | Yellow | Green | Orange      |
| Grey | Cream  | Blue  | Green/Brown |

Ucrete floor systems have been formulated to provide the very highest chemical and heat resistance. As a direct result some yellowing of the installed floor will occur in areas of direct UV exposure. This is most apparent in lighter colours.

### SPECIFICATION

The floor finish shall be Ucrete TZ from Master Builders Solutions of 19 Broad Ground Road, Redditch, Worcestershire, B98 8YP installed 9/12\* mm in thickness in accordance with the manufacturers' instructions

\*(select as required)

\*A 9mm Ucrete TZ floor is fully resistant to high temperature spillage and discharge up to 120°C and is fully steam cleanable. Suitable for freezer temperatures down to -40°C.

\*A 12mm Ucrete TZ floor is fully resistant to high temperature spillage and discharge up to 130°C and occasional spillage up to 150°C and is fully steam cleanable. Suitable for freezer temperatures down to -40°C.

In extreme thermal shock environments a well designed substrate of good quality concrete is essential.

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### SUBSTRATE QUALITY

Concrete substrates should be visibly dry and have a minimum tensile strength of 1.5 MPa.

Refer to the guide 'The Design & Preparation of Substrates for Ucrete Industrial Flooring'

All joints in the substrate concrete subject to movement should be reflected through the Ucrete floor and sealed with a suitable sealant

### SUBSTRATE MOISTURE TOLERANCE

Ucrete Industrial Flooring is extremely tolerant to residual substrate moisture and can be installed directly onto 7 day old concrete, or onto old good quality concretes with high moisture contents without the use of special primers, provided there is a functioning DPM within the structure.

This enables rapid construction programmes to be maintained and facilitates refurbishment work in wet process areas.

Epoxy surface DPMs should not be used as they soften under high temperature conditions and will lead to floor failure.

### APPLICATION CONDITIONS

For best results materials, substrate and air temperature should be in the range 5 – 20°C. Whilst Ucrete TZ will cure out effectively over a wide range of temperatures, the optimum appearance is most readily achieved under good site conditions.


### COVERAGE

9mm: 20 - 22 kg/m<sup>2</sup>

12mm: 26 - 27 kg/m<sup>2</sup>

### CURING

Normally Ucrete TZ floors can be put into service within 24 hours.

|  |                                  |
|--|----------------------------------|
|               |                                  |
| Master Builders Solutions<br>19 Broad Ground Road<br>Lakeside, Redditch<br>Great Britain B98 8YP |                                  |
| 04   |                                  |
| 01040064   |                                  |
| EN 13813:2002  |                                  |
| Synthetic resin screed material  |                                  |
| Reaction to fire:  | B <sub>FL</sub> – S <sub>1</sub> |
| Release of corrosive substances:   | NPD                              |
| Water permeability:  | NPD                              |
| Mechanical resistance:   | NPD                              |
| Wear resistance:   | AR0,5                            |
| Bond strength:   | B>2,0                            |
| Impact resistance:   | IR>4                             |
| Sound insulation:  | NPD                              |
| Sound absorption:  | NPD                              |
| Thermal resistance:  | NPD                              |
| Chemical resistance:   | NPD                              |
| Electrical resistance:   | NPD                              |



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### STORAGE

In covered warehouse conditions, above 5°C and below 30°C and out of direct sunlight. Materials must be raised off the floor and kept dry. Liquid components must be protected from frost.

### DISPOSAL

Part 2 containers should be decontaminated with 5% sodium carbonate (washing soda) solution after use and disposed of as building waste in accordance with local regulations.

### WARNINGS AND PRECAUTIONS

In its cured state Ucrete is physiologically non-hazardous.

For normal flooring applications Ucrete does not require the use of respiratory protective equipment during installation.

Operatives should consult the CoSHH risk assessment and their work instructions.

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