



Ucrete UD200

Heavy Duty Polyurethane Screed

MATERIAL DESCRIPTION

Ucrete UD200 is a unique HD Polyurethane resin floor with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 150°C.

Ucrete UD200 provides a lightly textured protective floor finish suitable for applications in wet and dry process environments. It is dense and impervious, providing the ideal floor finish for applications in the food and beverage, pharmaceutical and chemical industries and wherever a 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.

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 foodstuff 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.

NON-TAINING

Ucrete UD200 is solvent free and non-tainting from the end of mixing, as tested by the Campden Technology Ltd.

RAPID INSTALLATION

Specifications are available that enable **Ucrete UD200** and primer to be installed and cured within a 12 hour application window. Being non tainting also, this makes it ideally suited for rapid refurbishment in the food industry.

TEMPERATURE RESISTANCE

The **Ucrete UD200** 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 UD200** can withstand regular and routine discharges of boiling water, hot oils and fats.

- 6mm **Ucrete UD200** floors are fully serviceable from -25°C to + 80°C.
- 9mm **Ucrete UD200** floors are fully serviceable from -40°C to + 120°C.
- 12mm **Ucrete UD200** floors are fully serviceable from -40°C to + 130°C.

CHEMICAL RESISTANCE

Ucrete UD200 offers exceptional resistance to a wide range of chemical aggressors. For example, Ucrete is resistant to the following commonly encountered chemicals:

Acetic Acid, 50%: As spirit vinegar widely used in the food industry, indicative of resistance to vinegar, sauces, etc.

Concentrated Lactic Acid @ 60°C: Indicative of resistance to milk and dairy products.

Oleic Acid, 100% @ 60°C: Representative of the organic acids formed by oxidation of vegetable and animal fats widely encountered in the food industry.

Concentrated Citric Acid: As found in citrus fruits and representative of the wider range of fruit acids which can rapidly degrade other resin floors.

Methanol, 100%: Representative of alcohols and the wider range of solvents used in the pharmaceutical industry.

Ucrete UD200 is also resistant to a wide range of mineral oils, salts and inorganic acids, extensive chemical resistance tables are available upon request.

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

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TYPICAL PHYSICAL PROPERTIES*

Density	2090 kg/m ³
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)	4 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	B _{FL} – S ₁

Note: Samples cured for 28 days at 20°C

PACKAGING

Ucrete UD200: 30.53kg kit.

Part 1 = 2.37 kg

Part 2 = 2.86 kg

Part 3 = 24.8 kg

Part 4 = 0.5 kg

IMPACT RESISTANCE

With high mechanical strengths and a low elastic modulus, **Ucrete UD200** 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.

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.

PERMEABILITY

Ucrete UD200 exhibits zero absorption when tested to CP.BM2/67/2.

CLEANING AND HYGIENE

Ucrete flooring systems are accredited for use in facilities operating HACCP based food safety systems.

Ucrete UD200 is readily cleaned using industry standard cleaning chemicals and equipment.

Tests undertaken by Campden Technology Ltd on the removal of Acinetobacter Calcoaceticus and Listeria Monocytogenes concluded that the cleanability of **Ucrete UD200** 'compares well with the cleanability of food contact surfaces such as plastics and stainless steel'.

Regular cleaning and maintenance will enhance the life and appearance of any floor. **Ucrete UD200** is readily cleaned with industry standard cleaning chemicals and equipment. Please consult your local cleaning chemical or equipment supplier.

SLIP RESISTANCE

The **Ucrete UD200** surface profiles have coefficient of friction as determined to EN 13036 Part 4 with 4S rubber on the wet floor as follows:

Ucrete UD200 40 – 45

The **Ucrete UD200** surface profiles conform to DIN51130 as follows:

Ucrete UD200 R11 V

Optimum slip resistance can only be maintained with regular cleaning.

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COLOURS

Ucrete MF is available in eight standard colours:

Red	Grey	Yellow
Blue	Green/Brown	Cream
Orange	Green	

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 UD200** from Master Builders Solutions, Midrand, South Africa installed at 6/9/12* mm in accordance with the manufacturers' instructions. *(select as required)

*A 6mm **Ucrete UD200** floor is fully resistant to liquid spillage and discharge up to 80°C and can be lightly steam cleaned. Suitable for freezer temperatures down to -25°C.

*A 9mm **Ucrete UD200** 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 UD200** 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.

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.

COVERAGE

6mm: 13 - 15 kg/m²

9mm: 19 - 22 kg/m²

12mm: 24 kg/m²

CURING

Normally **Ucrete UD200** floors can be put into service within 24 hours even at 8°C. Specifications are available that can be put back into service after 5 hours at 10°C.

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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.

Shelf life is 9 months from date of manufacture when stored in undamaged, unopened packaging. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions' Technical Services Department.

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.

WARNING 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.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory controlled tests.

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