

Ucrete[®] UD200

Heavy Duty Polyurethane Screed

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 through-out industry for more than 40 years, many of the older floors are still in service. A detailed project reference list is available upon request

RECOMMENDED USES

Ucrete UD200 is recommended for conditions requiring maximum chemical resistance, slip resistance and cleanability, especially in extreme temperature environments.

Specific applications include:

- Meat, fish and poultry processing
- Food and beverage production
- Dairies, cheese and milk production
- Commercial and industrial kitchens
- Cold rooms, chillers and freezers
- Pharmaceutical production
- Chemical plants

FEATURES AND BENEFITS

- **Expert application** - Installed only by trained and approved specialist contractors.
- **Fast application / Rapid access** - Can be applied to 6-day-old concrete or 2 day old polymer screeds.
- **Short curing time** - 8 hour access to foot traffic; 24 hours for vehicles.
- **Hygienic/Safe** - Slip resistant, non-tainting, non-dusting, monolithic (minimum joints), easy to maintain, microbiologically inert.
- **Durable/long life** - Wide chemical resistance, wear and impact resistant, resists temperatures from -40°C to 120°C at 9 mm thickness; resistant to occasional spillage to 150°C; more than 25 years of international use.

- **Pre-packed** - Pre-weighed/ pre-packed for immediate use; batch-to-batch colour-matched for consistency.

ACCREDITATION

- Ucrete flooring systems are accredited for use in facilities operating HACCP based food safety systems.
- 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.
- All Ucrete grades give very low emissions and conform to all the emissions requirements for indoor flooring systems in Europe including **AgBB in Germany**, rated **A+** for VOC emissions from **Afsset in France** and **M1 in Finland**.
- **Ucrete UD200** is non tainting from the end of mixing, as tested by the Campden Technology Ltd

PERFORMANCE DATA

Compressive Strength (BS6319:Part 2)	52 - 57 MPa
Flexural Strength (ISO178)	14 MPa
Compressive Modulus (BS 6319 – Part 6)	3.25 GPa
Tensile Strength (ISO R527)	6 MPa
Concrete Adhesion (BS6319:Part2)	concrete fails
Abrasion Resistance (BS 8204)	AR 0.5
Coeff. of Thermal Expansion (ASTM C531)	4x10 ⁻⁵ °C ⁻¹
Thermal Conductivity (BS874)	1.1W/m° C
Surface Resistivity (BS2050)	3x10 ⁻⁴ Ω
Density (BS6319:Part 5)	2090 Kg/m ³
Water Absorption (CP.BM 2/67/2)	0 mL
Slip Resistance	

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EN 13036 (4S Rubber) DIN 51130	40 – 45 R11
Surface Spread of Flame (BS476:Part 7)	Class 2
Service Temperature	
6 mm	- 25°C to 80°C
9 mm	- 40°C to 120°C
12mm	- 40°C to 130°C*
*Occasional spillage up to 150°C	
<i>Samples cured for 28 days at 20°C. The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.</i>	

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 discoloration may occur with some chemicals, depending upon the nature of the spill-age and the standards of housekeeping employed.

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 programs 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.

UV Resistance

The **Ucrete** resin systems have been formulated to provide the very highest chemical and heat resistance. UV exposure though not affecting the performance of the **Ucrete** will result in yellowing of the floor which is most apparent in light colors.

Impact Resistance

With high mechanical strengths and a low elastic modulus, **Ucrete UD 200** 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.

COLORS

Ucrete UD 200 is available in Grey, Green, Cream, Yellow, Orange, Red, Blue, Light grey & Light green colors.

APPLICATION

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

Priming

Ucrete UD 200 shall be applied to a cured scratch coat of **Ucrete MF** of 1 mm nominal thickness.

For information about application, please obtain a copy of the Master Builders Solutions "Application Guide for **Ucrete**®" from your local representative.

ESTIMATING DATA

Ucrete UD 200 should be installed as per the consumption rates given below:

Thickness	Consumption
6mm	13 – 15 Kgs/m ²
9mm	19 – 22 Kgs/m ²
12mm	24 Kgs/m ²

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PACKAGING

Ucrete UD 200 is supplied in multi-component polykit as given below

Ucrete UD 200 Part 1	2.37 kg
Ucrete UD 200 Part 2	2.86 kg
Ucrete UD 200 Part 3	24.8 kg
Ucrete Part 4 pigment	0.5 kg

SHELF LIFE

Ucrete UD 200 has a shelf life of 12 months. Store in covered warehouse conditions above 5°C and out of direct sunlight. Materials must be raised off the floor and kept dry. Parts 1 and 2 must be protected from frost and if frozen should be discarded.

PRECAUTIONS

Please refer the Material Safety Data Sheet for handling and storage of this product.

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