

UCRETE® UD200

Heavy Duty Polyurethane Screed

DESCRIPTION OF PRODUCT

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.

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 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 BASF representative

NON-TAINTING

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.

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.

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.

UCRETE® UD200

TYPICAL 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)	$4 \times 10^{-5} \text{ }^{\circ}\text{C}^{-1}$
Fire Testing (EN13501: Part 1)	B _{FL} – S ₁

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

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 & 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'.

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.

COLOURS

UCRETE® UD200 is available in nine standard colours:

Red	Yellow	Green
Grey	Light Grey	Blue
Cream	Orange	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.

UCRETE® UD200

SPECIFICATION

The floor finish shall be **UCRETE® UD200** from BASF Construction Chemicals, 852 Sixteenth Rd, 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/m ²
9mm:	19 – 22 kg/m ²
12mm:	24 kg/m ²

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.



BASF Construction Chemicals
19 Broad Ground Road
Lakeside, Redditch
Great Britain B98 8YP

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01040066

EN 13813:2002

Synthetic resin screed material

Reaction to fire:	B _{FL} – S ₁
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



We create chemistry

UCRETE® UD200

CLEANING

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.

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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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by BASF either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF, are responsible for carrying out procedures appropriate to a specific application.

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