



The Chemical Company

# UCRETE<sup>®</sup> UD200

## Heavy Duty Polyurethane Screed

Unique HD Polyurethane resin technology with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 150 °C

### Description of Product

UCRETE<sup>®</sup> 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<sup>®</sup> Industrial Flooring has been widely used throughout industry for more than 30 years, many of the older floors are still in service. A detailed project reference list is available upon request

### Performance Data

#### Temperature Resistance

The UCRETE<sup>®</sup> 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<sup>®</sup> UD200 can withstand regular and routine discharges of boiling water, hot oils and fats.

#### Non Tainting

UCRETE<sup>®</sup> UD200 is solvent free and non tainting as tested by the Campden & Choreywood Food Research Association

### Chemical Resistance

UCRETE<sup>®</sup> UD200 offers exceptional resistance to a wide range of chemical aggressors. For example UCRETE<sup>®</sup> 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<sup>®</sup> 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 house keeping employed.

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#### 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

#### Slip Resistance

UCRETE® UD200 conforms to the HSE Guidance Sheet 156 and Food Sheet No.22, issued by the Health and Safety Executive, on slip resistance.

UCRETE® UD200 continues to meet the requirements of 'Food Sheet No. 22' even after years of hard and steel wheeled traffic.

Optimum slip resistance can only be maintained with regular cleaning.

#### Cleaning & Hygiene

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

Tests undertaken by Campden & Choreywood Food Research Association 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'

#### Permeability

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

#### 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.

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#### Colours

UCRETE® UD200 is available in six standard colours:

**Red Yellow Green Orange Grey Cream**

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.

Technical Data/Typical Properties  
samples cured for 28 days at 20°C

|  |                                       |
|--|---------------------------------------|
| Density (BS 6319:Part 5)                               | 2090Kg/m <sup>3</sup>                 |
| Compressive strength (BS 6319:Part 2)                  | 58 MPa                                |
| Tensile strength (ISO R527)                            | 6 MPa                                 |
| Flexural strength (ISO 178)                            | 14 MPa                                |
| Compressive modulus (BS 6319:Part 6)                   | 3250 MPa                              |
| Adhesive strength to concrete (BS6319:Part 4),         | concrete failure                      |
| Coefficient of thermal expansion (ASTM C531:Part 4.05) | 4 x 10 <sup>-5</sup> °C <sup>-1</sup> |
| Thermal conductivity (BS 874)                          | 1.1 W/m °C                            |
| Surface spread of flame (BS 476:Part 7)                | Class 2                               |

#### Specification

The floor finish shall be UCRETE® UD200 from BASF Construction Chemicals, of 19 Broad Ground Road, Redditch, Worcestershire, B98 8YPB installed at 6/9/12\* mm in accordance with the manufacturers' instructions.

\*A 6 mm UCRETE® UD200 floor is fully resistant to liquid spillage and discharge up to 70 °C and can be lightly steam cleaned.

\*A 9 mm UCRETE® UD200 floor is fully resistant to high temperature spillage and discharge up to 120 °C and is fully steam cleanable.

\*A 12 mm 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.

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'



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#### Coverage

6 mm: 13–15 kg/m<sup>2</sup>  
9 mm: 19–22 kg/m<sup>2</sup>  
12 mm: 24 kg/m<sup>2</sup>

#### Curing

Normally UCRETE<sup>®</sup> UD200 floors can be put into service within 24 hours even at 8 °C .

#### Cleaning

Regular cleaning and maintenance will enhance the life and appearance of any floor. UCRETE<sup>®</sup> 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. Parts 1 & 2 must be protected from frost.

#### Disposal

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

UCRETE<sup>®</sup> UD200 BASF Construction Chemicals UK Ltd Version 4, July 2006

#### Health and Safety

\*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

#### Solvent Based Products

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

#### Powder Products

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

#### Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

#### Spillage

Chemical products can cause damage; clean spillage immediately.

#### DISCLAIMER

"BASF" (the Company) endeavour to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.

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