



The Chemical Company

# UCRETE® DP 10 / 20 / 30

Heavy Duty Polyurethane Screed with Defined Surface Profile

Unique HD Polyurethane resin technology with exceptional resistance to aggressive chemicals, heavy impact and temperatures from -30°C upto 120°C (4mm – 6mm – 9mm)

## Description of product

UCRETE® DP is a family of products with defined surface profiles suitable for applications in wet and dry process environments.

The system offers a uniformity of surface texture with enhanced aesthetics so providing a safe and attractive working environment.

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® DP systems are suitable for use in industries that employ C.I.P. & H.A.C.C.P. procedures.

With three thickness specifications and three defined surface profiles available, UCRETE® DP is designed to meet a wide range of service and temperature requirements.

UCRETE® 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

### Slip Resistance

UCRETE® DP conforms to the HSE Guidance Sheet 156 and Food Sheet No.22, issued by the Health and Safety Executive, on slip resistance. The UCRETE® DP surface profiles have coefficient of friction as determined using the TRRL slip resistance tester with 4S rubber on the wet floor as follows:

UCRETE® DP 10	50-60
UCRETE® DP 20	55-75
UCRETE® DP 30	60-80

The UCRETE® DP surface profiles conform to DIN 51130 as follows:

UCRETE® DP 10	R11	-
UCRETE® DP 20	R13	V4
UCRETE® DP 30	R13	V8

The extremely robust aggregates used to provide the texture of UCRETE® DP 20 and UCRETE® DP30 are designed to maintain optimum slip resistance for many years. Where there is heavy hard wheeled traffic it is recommended that UCRETE® DP30 is used.

Optimum slip resistance can only be maintained with regular cleaning.

### Temperature Resistance

At 4mm thickness UCRETE DP is resistant to liquid spillage and discharge up to 60°C.

At 6mm thickness UCRETE DP is resistant to liquid spillage and discharge upto 70°C and can be lightly steam cleaned.

At 9mm thickness UCRETE DP is resistant to spillage and high temperature discharge upto 120°C and is fully steam cleanable.

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



The Chemical Company

# UCRETE<sup>®</sup> DP 10 / 20 / 30

## Non Tainting

The UCRETE<sup>®</sup> DP systems are solvent free and non tainting as tested by the Campden & Chorleywood Food Research Association.

## Chemical resistance

UCRETE<sup>®</sup> DP 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. All concentrations of 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> DP 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.

## Impact Resistance

With high mechanical strengths and a low elastic modulus, UCRETE<sup>®</sup> DP 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<sup>®</sup> floors

## Cleaning & Hygiene

UCRETE<sup>®</sup> DP is cleaned using industry standard cleaning chemicals and equipment. The use of a food industry standard scrubber drier machine is recommended.

## Permeability

UCRETE<sup>®</sup> DP exhibits zero absorption when tested to CP.BM2/67/2.

## Substrate Moisture Tolerance

UCRETE<sup>®</sup> Industrial Flooring is extremely tolerant to residual substrate moisture and can be installed directly onto 7 day old concrete, or onto old good quality concrete 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.

## Colours

UCRETE<sup>®</sup> DP is available in six standard colours: Red Yellow Green Orange Grey Cream UCRETE<sup>®</sup> 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<sup>®</sup> DP 10 / 20 / 30

## Packaging

UCRETE<sup>®</sup> DP is available in:

Packaging	Mixed Weight
UCRETE PRIMER SC 3 Components	2.905kg
UCRETE DP BASECOAT B4 4 Components	18.88kg
UCRETE DP BASECOAT B6 4 Components	23.18kg
UCRETE DP BASECOAT B9 4 Components	26.88kg
5 Components	30.88kg
UCRETE DP TOPCOAT 4 Component	3.72kg
Filler F5/F20/F25	25kg

\* UCRETE DP BASECOAT & TOPCOAT include pigment components

## Coverage

Primer	UCRETE PRIMER SC	0.2-0.4kg/m <sup>2</sup>
--------	------------------	--------------------------

4mm	UCRETE DP BASECOAT B4	6-8kg/m <sup>2</sup>
6mm	UCRETE DP BASECOAT B6	10-12kg/m <sup>2</sup>
9mm	UCRETE DP BASECOAT B9	16-18kg/m <sup>2</sup>

To achieve DP10 Profile	UCRETE Filler F5	4-5kg/m <sup>2</sup>
To achieve DP20 Profile	UCRETE Filler F20	4-5kg/m <sup>2</sup>
To achieve DP30 Profile	UCRETE Filler F25	4-5kg/m <sup>2</sup>

UCRETE DP TOPCOAT on F5	0.4-0.6kg/m <sup>2</sup>
UCRETE DP TOPCOAT on F20	0.7-0.9kg/m <sup>2</sup>
UCRETE DP TOPCOAT on F25	1.0-1.2kg/m <sup>2</sup>

## \*Technical Data

Samples cured for 28 days at 20°C

Density (BS 6319 : Part 5)	2000-2090kg/m <sup>3</sup>
Compressive strength (BS 6319 : Part 2)	48-58 MPa
Tensile strength (ISO R527)	5-7MPa
Flexural strength (ISO 178)	12-14MPa
Compressive modulus (BS 6319:Part 6)	3250-5000 MPa
Adhesive strength (BS 6319 : Part 4)	concrete failure
Thermal expansion (ASTM C531 : Part 4.05)	2-6 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 UCRETE<sup>®</sup> DP system consists of three surface textures, UCRETE<sup>®</sup> DP 10, UCRETE<sup>®</sup> DP 20, and UCRETE<sup>®</sup> DP 30 which can be installed at thicknesses of 4, 6 or 9 mm depending upon the service conditions. The specifier should specify the grade and surface texture required as UCRETE<sup>®</sup> DP 10, UCRETE<sup>®</sup> DP 20 or UCRETE<sup>®</sup> DP 30 and the required thickness.

For example:-The floor finish shall be UCRETE<sup>®</sup> DP 10, UCRETE<sup>®</sup> DP 20, UCRETE<sup>®</sup> DP 30 (select depending upon required texture), from BASF Construction Chemicals UAE LLC, PO Box 37127, Dubai, UAE installed at 4/6/9\* mm (select depending on service conditions) installed in accordance with the manufacturers' instructions.

## 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



The Chemical Company

# UCRETE<sup>®</sup> DP 10 / 20 / 30

Substrates for UCRETE<sup>®</sup> Industrial Flooring' All joints in the substrate concrete subject to movement should be reflected through the UCRETE<sup>®</sup> DP floor and sealed with a suitable sealant.

## 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 and extreme temperatures.

## Application conditions

For best results materials, substrate and air temperature should be in the range 15-30°C. Whilst UCRETE<sup>®</sup> DP will cure out effectively over a wide range of temperatures the optimum appearance and profiles are most readily achieved under good site conditions Low temperatures will retard the setting and can impair the visual appearance of the floor.

High temperatures will shorten the open time and can impair the appearance of the floor.

## Curing

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

## 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.

## Cleaning

Regular cleaning and maintenance will enhance the life and appearance of any floor. UCRETE<sup>®</sup> DP is readily cleaned with industry standard cleaning

chemicals and equipment. Please consult your local cleaning chemical or equipment supplier.

## 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.

# UCRETE<sup>®</sup> DP 10 / 20 / 30

## 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.

07/2004 BASF\_CC-UAE revised 04/2009

\* Properties listed are based on laboratory controlled tests.

---

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.