

# UCRETE DP

Heavy duty non slip polyurethane concrete flooring system

## DESCRIPTION

Unique Heavy Duty Polyurethane resin technology with exceptional resistance to aggressive chemicals, heavy impact and temperatures from -40°C up to 120°C.

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

It is dense and impervious providing an ideal floor finish for applications in the food and beverage, pharmaceutical and chemical industries and wherever a robust long lived floor is required.

## RECOMMENDED FOR

**Ucrete DP** is recommended for conditions requiring the maximum chemical resistance and a slip-resistant surface is required.

Specific applications include:

- textile and film plants
- food and beverage production
- warehousing and storage
- confectionery production
- electronic component manufacture & assembly
- pharmaceutical production
- chemical plants

## FEATURES AND BENEFITS

"HACCP Accredited Ucrete products have been accredited for use in facilities covered by HACCP accreditation."

*Ucrete DP has approval for use as flooring for HACCP accredited facilities.*



- **Expert application** - installed only by trained and approved specialist contractors.
- **Fast application /rapid access** - can be applied to 6-day-old concrete and 2-day-old polymer screeds. Short curing time with 8 hour access to foot traffic; 24 hours for vehicles.
- **Hygienic/safe** - 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 up to 120°C; many years of international use.
- **Pre-packed** - preweighed / pre-packed for immediate use; batch-to-batch colour matched for consistency.
- **Non Tainting** - solvent free and non-tainting as tested by the Campden & Chorleywood Food Research Association.

- Available in six standard colours - Red, Yellow, Green, Orange, Grey, Cream

## PERFORMANCE DATA

**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 DIN51130 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 DP 30** are designed to maintain optimum slip resistance for many years. Where there is heavy hard wheeled traffic it is recommended that **Ucrete DP 30** is used.

Optimum slip resistance can only be maintained with regular cleaning.

**Temperature Resistance** - The **Ucrete DP** resins do not start to soften until temperatures above 130°C are exceeded. 9mm specifications are fully serviceable up to 120°C. Correctly installed **Ucrete DP** at 9mm thickness can withstand regular and routine discharges of boiling water, hot oils and fats.

**Chemical Resistance** - **Ucrete DP** offers exceptional resistance to a wide range of chemicals. For example **Ucrete** is resistant to the following commonly encountered chemicals.

*Acetic acid, 50%:* 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.* Representative of the wider range of fruit acids which can rapidly degrade other resin floors.

*Methanol, 100%:* Representative of alcohols and solvents used in industry.

**Ucrete 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 on the nature of the spillage and the standards of housekeeping employed.*

**Impact Resistance** - With high mechanical strengths and low elastic modulus, **Ucrete DP** is very resilient and able to withstand severe impact loads. While no material is indestructible and surface chipping may occur, brittle

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modes of failure resulting in cracking and disbondment are unknown with **Ucrete** floors.

**Cleaning And Hygiene** - **Ucrete DP** is cleaned using industry standard cleaning chemicals and equipment. The use of a food industry standard scrubber drier machine is recommended.

**Permeability** - **Ucrete DP** exhibits zero absorption when tested to CP.BM2/67/2.

**Substrate Moisture Tolerance** - **Ucrete DP** 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.

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.

## 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 - 7 MPa
Flexural strength (ISO 178)	12 - 14 MPa
Compressive modulus (BS 6219:Part 6)	3250-5000 MPa
Adhesive strength (BS6319: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

## APPLICATION

For information about application, please obtain a copy of the BASF "Application Guide for Ucrete" from your local representative.

Ucrete floor systems have been formulated to provide the 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.

## CURING

Normally **Ucrete DP** floors can be put into service within 24 hours even at 8°C.

## PACKAGING

**Ucrete DP** is supplied in:

<b>Ucrete DP</b> Part 1 :	2.52 kg
<b>Ucrete DP</b> Part 2 :	2.86 kg
<b>Ucrete BC4</b> Part 3 :	13.0 kg
<b>Ucrete BC6</b> Part 3:	17.3kg
<b>Ucrete BC9</b> Part 3 :	21.0kg
<b>Ucrete</b> Liquid Pigment :	0.5 kg

DP Topcoat:

Part 1:	0.77kg
Part 2:	1.09kg
Part 3:	1.36 kg
Liquid Pigment:	0.5kg

## SHELF LIFE

Store in dry covered warehouse conditions above 5°C and below 30°C and out of direct sunlight. Parts 1 and 2 must be protected from frost.

## PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

SUcreteDP/5/0310

### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** 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. **BASF Construction Chemicals data sheets are updated on a regular basis and it is the user's responsibility to obtain the most recent issue.**

### 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 Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.

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