

UCRETE DP20 AS

Antistatic Heavy Duty Polyurethane Screed

Unique HD Polyurethane resin technology with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 70°C

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[®] 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

Antistatic Properties

The antistatic version of UCRETE[®] DP20 AS complies with the requirements of BS5958, EN1081 and DIN51953

For more detailed information on earthing anti static floors refer to the separate data sheet Guidelines to Earthing of UCRETE[®] antistatic floors

Slip Resistance

UCRETE[®] DP20 AS conforms to the HSE Guidance Sheet 156 and Food Sheet No.22, issued by the Health and Safety Executive, on slip resistance.

The UCRETE[®] DP20 AS surface profiles have coefficient of friction as determined using the TRRL slip resistance tester with 4S rubber on the wet floor as follows:

UCRETE[®] DP20 AS 55 - 75

The UCRETE[®] DP20 AS surface profiles conform to DIN51130 as follows:

UCRETE[®] DP20 AS R13 V4

The extremely robust aggregates used to provide the texture of UCRETE[®] DP20 AS are designed to maintain optimum slip resistance for many years.

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.

The 6 mm UCRETE[®] DP20 AS specifications are fully serviceable up to 70 °C.

Non Tainting:

The UCRETE[®] DP systems are solvent free and non tainting as tested by the Campden & Chorleywood Food Research Association

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Chemical Resistance:

UCRETE[®] DP20 AS offers exceptional resistance to a wide range of chemical aggressors. For example UCRETE[®] DP20 AS 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[®] DP20 AS 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[®] DP20 AS 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

Cleaning & Hygiene:

UCRETE[®] DP20 AS is cleaned using industry standard cleaning chemicals and equipment. The use of an industry standard scrubber drier machine is recommended.

Permeability:

UCRETE[®] DP20 AS 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 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[®] DP20 AS is available in 5 standard colours:

Red Yellow Green Orange Grey

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

samples cured for 28 days at 20°C

Density (BS 6319:Part 5)	2000 – 2090 Kg/m ³
Compressive strength (BS 6319:Part 2)	48 – 58 MPa
Tensile strength (ISO R527)	5 - 7 MPa
Flexural strength MPa (ISO 178)	12 - 14
Compressive modulus (BS 6319:Part 6)	3250 - 5000 MPa
Adhesive strength (BS6319:Part 4)	Concrete failure
Resistance to Earth DIN 51953 EN1081	< 10 ⁶ ohm < 10 ⁶ ohm
Thermal expansion (ASTM C531:Part 4.05)	2 - 6 x 10 ⁻⁵ °C ⁻¹
Thermal conductivity (BS 874)	1.1 W/m °C
Surface spread of flame (BS 476:Part 7)	Class 2

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Specification

The floor finish shall be UCRETE[®] DP20 AS, from Degussa Construction Chemicals, of 19 Broad Ground Road, Redditch, Worcestershire, England, B98 8YP, installed at 6 mm in accordance with the manufacturers' instructions.

*A 6 mm UCRETE[®] DP20 AS floor is fully resistant to liquid spillage and discharge up to 70°C and can be lightly steam cleaned.

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[®] DP20 AS floor and sealed with a suitable sealant.

The floor must be properly earthed with at least 2 earth linkages per room to ensure that all areas of floor are reliably connected to earth.

For more detailed information on earthing antistatic floors refer to the separate data sheet Guidelines to Earthing of UCRETE[®] antistatic floors

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.

Application Conditions

For best results materials, substrate and air temperature should be in the range 15 – 25 °C. Whilst UCRETE[®] DP20 AS 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[®] DPAS 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[®] DP20 AS is readily cleaned with industry standard cleaning chemicals and equipment. Please consult your local cleaning chemical or equipment supplier.

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Ucrete DP AS Degussa Construction Chemicals UK Version 2

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:

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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