

UCRETE DPAS

Antistatic Defined Profile Heavy Duty Polyurethane Screeds

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

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.

Two antistatic versions are available with a fine and medium textured surfaces to meet a range of slip resistance, aesthetics and ease of cleaning 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

Antistatic Properties

UCRETE DP10AS and UCRETE DP20AS comply with the requirements of BS5958, EN1081 and DIN51953

For details on earthing antistatic floors refer to the separate data sheet, 'Guidelines to Earthing of UCRETE® Antistatic Floors'

Temperature Resistance

The UCRETE DP resins do not start to soften until temperatures above 130°C are exceeded.

The 6 mm UCRETE DPAS 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.

Non Tainting

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

Slip Resistance

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

The UCRETE DPAS floors have a coefficient of friction as determined to EN 13038 Part 4 using the 4S rubber on the wet floor as follows:

UCRETE DP10AS	45 - 50
UCRETE DP20AS	45 - 55

The UCRETE DPAS surface profiles conform to DIN51130 as follows:

UCRETE DP10AS	R11	-
UCRETE DP20AS	R13	V4

The extremely robust aggregates used to provide the texture of UCRETE DP20AS are designed to maintain optimum slip resistance for many years.



The Chemical Company

UCRETE DPAS

Optimum slip resistance can only be maintained with regular cleaning.

Cleaning & Hygiene

UCRETE DPAS floors are cleaned using industry standard cleaning chemicals and equipment. The use of an industry standard scrubber drier machine is recommended.

Separate cleaning guidelines are available upon request.

Chemical Resistance

UCRETE DPAS offers exceptional resistance to a wide range of chemical aggressors. For example UCRETE DPAS is resistant to the following commonly encountered chemicals.

Most dilute and concentrated organic acids such as, Acetic acid, Lactic Acid, Oleic Acid and Citric Acid as commonly found in the food industry,

Mineral acids: hydrochloric, nitric, phosphoric and sulphuric.

Dilute and concentrated alkalis, including sodium hydroxide to 50% concentration

Animal fats and vegetable oils, sugars flavourings and essences.

Mineral oils, kerosene, gasoline and brake fluids
A wide range of organic solvents including Methanol, Xylene Ethers and Chlorinated solvents

Note: some staining or discolouration may occur with some chemicals depending upon the nature of the spillage and the standards of house keeping employed.

Extensive chemical resistance tables are available in the separate data sheet 'A guide to the chemical resistance of UCRETE Flooring'.

Impact Resistance

With high mechanical strengths and a low elastic modulus, UCRETE DPAS floors are 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

Permeability

UCRETE DPAS floors 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 DPAS floors are available in 6 standard colours:

Red Yellow Green Orange Grey & Cream

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UCRETE resin 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

Density (BS 6319:Part 5)	2000 – 2090
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 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
Fire Testing: EN13501: Part 1 Surface spread of flame (BS 476:Part 7)	B _{FL} - S1 Class 2
Resistance to earth, DIN51953 EN1081	< 10 ⁶ ohm < 10 ⁶ ohm

Specification

The floor finish shall be UCRETE DP10AS/DP20AS*, from BASF Construction Chemicals, of 19 Broad Ground Road, Redditch, Worcestershire, England, B98 8YP, installed at 6 mm in accordance with the manufacturers' instructions.

**(select as required)*

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 DPAS floor and sealed with a suitable sealant.

Earthing

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'

Application Conditions

For best results materials, substrate and air temperature should be in the range 15 – 25 °C. Whilst UCRETE DPAS floors 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.

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Curing

Normally, UCRETE DPAS floors can be put into service within 24 hours even at 8°C.

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 disposed of as building waste in accordance with local regulations.

Warnings and precautions


In its cured state UCRETE DPAS is physiologically non-hazardous.

Operatives should consult the CoSHH risk assessment and their work instructions.

Warnings & precautions

In its cured state, UCRETE PRIMER RG is physiologically non-hazardous.

Operatives should consult the CoSHH risk assessment and their work instructions.

	
BASF Construction Chemicals (UK) Ltd 19 Broad Ground Road Lakeside, Redditch Great Britain B98 8YP	
04	
EN13813 SR-B>2,0-AR0,5-IR>4-ER ² <10 ⁶ -ER ³ <10 ⁶	
Synthetic resin screed material	
Reaction to fire:	NPD
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:	ER ² <10 ⁶ -ER ³ <10 ⁶

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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.

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* Properties listed are based on laboratory controlled tests.

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