

# Ucrete® DPAS

## Antistatic Defined Profile Heavy Duty Polyurethane Screed

### DESCRIPTION

**Ucrete DPAS** is unique HD Polyurethane resin technology with exceptional resistance to aggressive chemicals, heavy impact, and temperatures up to 80°C providing antistatic properties for use in explosion hazarded areas.

**Ucrete DPAS** 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 through-out industry for more than 40 years, many of the older floors are still in service. A detailed project reference list is available upon request.

### RECOMMENDED USES

**Ucrete DPAS** is recommended for conditions requiring maximum chemical resistance, slip resistance and cleanability, especially in extreme temperature environments.

Specific applications include:

- Meat, fish, and poultry processing
- Food and beverage production
- Dairies, cheese, and milk production
- Commercial and industrial kitchens
- Cold rooms, chillers, and freezers
- Pharmaceutical production
- Chemical plants

### FEATURES AND BENEFITS

- **Expert application** - Installed only by trained and approved specialist contractors.
- **Fast application / Rapid access** - Can be applied to 7-day-old concrete or 2-day old polymer screeds.
- **Short curing time** - 8 hours access to foot traffic; 24 hours for vehicles.
- **Hygienic/Safe** - Slip resistant, non-tainting, non-dusting, monolithic (minimum joints), easy to maintain, microbiologically inert.
- **Defined Profiles** – Optimum Slip resistant surfaces even in wet process environment.

- **Uniform Surface Texture** – Enhanced aesthetics providing safe and attractive working environment

### ACCREDITATION

- Ucrete flooring systems are accredited for use in facilities operating **HACCP** based food safety systems.
- Ucrete has been awarded the Indoor **Air Comfort Gold Label** following extensive VOC emission chamber testing and auditing of quality management and production control procedures.
- All Ucrete grades give very low emissions and conform to all the emissions requirements for indoor flooring systems in Europe including **AgBB in Germany**, rated **A+** for VOC emissions from **Afset in France** and **M1 in Finland**.
- **Ucrete DP10AS** and **Ucrete DP20AS** comply with the requirements of BS5958, EN1081 and DIN51953

### PERFORMANCE DATA

Compressive Strength (EN 13892: Part 2)	48 - 54 MPa
Flexural Strength (EN 13892: Part 2)	12 - 14 MPa
Compressive Modulus (BS 6319 – Part 6)	3.25 – 5.0 GPa
Tensile Strength (BS 6319 – Part 7)	5 - 7 MPa
Concrete Adhesion (EN 13892: Part 8)	concrete fails
Coeff. of Thermal Expansion (ASTM C531)	4x10 <sup>-5</sup> °C <sup>-1</sup>
Density (BS6319:Part 5)	2000 - 2090Kg/m <sup>3</sup>
Water Absorption (CP.BM 2/67/2)	0 mL
Slip Resistance <sup>1</sup> EN 13038 : Pt 4 (4S Rubber)	
Ucrete DP10AS	45 – 50
Ucrete DP20AS	45 – 55
DIN 51130	
Ucrete DP10AS	R11
Ucrete DP20AS	R13 V4
Service Temperature 6 mm	- 25°C to 80°C*
*Lightly Steam Cleaned	

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*1. The extremely robust aggregates used to provide the texture of **Ucrete DP20** 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.*

## Chemical Resistance

**Ucrete DPAS** offers exceptional resistance to a wide range of chemical aggressors. For example, Ucrete 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 DPAS** 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 discoloration may occur with some chemicals, depending upon the nature of the spillage and the standards of housekeeping employed.

## Substrate Moisture Tolerance

Ucrete Industrial Flooring is extremely tolerant to residual substrate moisture and can be installed directly onto 7 days 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 programs 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.

## UV Resistance

The **Ucrete** resin systems have been formulated to provide the very highest chemical and heat resistance. UV exposure though not affecting the performance of the **Ucrete** will result in yellowing of the floor which is most apparent in light colors.

## Impact Resistance

With high mechanical strengths and a low elastic modulus, **Ucrete DP** is very resilient and able to withstand severe impact loads. While no material is indestructible and sur-face chipping may occur, brittle modes of failure resulting in cracking and disbondment are unknown with Ucrete floors.

## COLORS

**Ucrete UD 200** is available in Grey, Green, Cream, Yellow, Orange, Red, Blue, Light grey & Light green colors.

## APPLICATION

### 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 floor and sealed with a suitable sealant

### Priming

Priming is not normally necessary unless substrates are very porous or have large bleed run pores. However it is useful to apply a strip of scratchcoat primer where copper tapes are to be laid to facilitate adhesion of the tapes.

On smaller areas, the use of PRIMER FS enables Primer, copper tape and Basecoat to be applied in one day.

### Earthing:

See section 8.1 in "Application Guide for Ucrete" for details of earth connections.

Install copper tapes and linkage: abrade the primer with fine emery paper and removing dust by vacuum to ensure good adhesion of the copper tape.

Wipe the tape carefully with a dry cloth or paper towelling to ensure there is no oil or contamination upon the surface.

### Basecoat

**Ucrete DPAS** is a family of 6mm conductive broadcast systems that provides a uniform textured surface. It is produced using the Basecoat of Ucrete BASECOAT BC6AS

For further details, please refer to a separate datasheet of Ucrete BASECOAT.

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## Topcoat

**Ucrete TC** is used as top coat for sealing the surface of the **Ucrete DPAS**. For Matt finish **Ucrete TC** is used and for glossy finishes **Ucrete TC Gloss** is used.

For further details, please refer to a separate datasheet of **Ucrete TC**.

For information about application, please obtain a copy of the Master Builders Solutions “Application Guide for **Ucrete<sup>®</sup>**” from your local representative.

## Aggregate Scatter

**Ucrete DP10AS** is produced by broadcasting FILLER F5AS

**Ucrete DP20AS** is produced by broadcasting FILLER F20AS

## PACKAGING

**Ucrete DP** is supplied in three different grades and consists of Basecoat, Filler & Topcoat as follows:

	Pack size in Kgs			
	Pt 1	Pt 2	Pt 3	Pt 4
Ucrete BASECOAT BC6AS	2.93	3.29	14.5	0.5
Ucrete TC	0.77	1.09	1.36	0.5
Ucrete TC Gloss	0.83	1.09	1.36	0.5
Filler F5AS / F20AS	25 Kg bags			

## ESTIMATING DATA

**Ucrete DPAS** should be installed as per the consumption rates given below:

Grade & Thickness	Consumption (Kgs/m <sup>2</sup> )
<b>Ucrete DP10AS @ 6mm</b>	
Ucrete BASECOAT BC6AS	10 – 12
Filler F5AS	4 – 5
Ucrete TC / TC GLOSS	0.4 – 0.6
<b>Ucrete DP 20AS @ 6mm</b>	
Ucrete BASECOAT BC6AS	10 – 12
Filler F20AS	4 – 5
Ucrete TC / TC GLOSS	1 – 1.2

## SHELF LIFE

**Ucrete DPAS** has a shelf life of 12 months. Store in covered warehouse conditions above 5°C and out of direct sunlight. Materials must be raised off the floor and kept dry. Parts 1 and 2 must be protected from frost and if frozen should be discarded.

## 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 Master Builders Solutions Material Safety Data Sheet (MSDS) from our office or our website.

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MAP#Ucrete DPAS v2 - 12.2020

## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions 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.

## NOTE

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