

Ucrete[®] DP

Defined Profile Heavy Duty Polyurethane Screed

DESCRIPTION OF PRODUCT

Ucrete[®] DP is unique HD Polyurethane resin technology with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 120°C.

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, with a gloss or matt finish, 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.

With three defined surface profiles and three thickness specifications 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 40 years, many of the older floors are still in service. A detailed project reference list is available upon request.

An antistatic version of **Ucrete[®] DP 10** and **Ucrete[®] DP 20** is available, see separate data sheet.

PERFORMANCE DATA AIR QUALITY

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.

This demonstrates that **Ucrete[®]** is an extremely clean product without any volatile compounds that might taint food-stuff or affect the well-being of personnel.

All **Ucrete[®]** grades give very low emissions and conform to all the emissions requirements for indoor flooring systems in Europe including AgBB in Germany, Afsset in France, where they are rated A+ for VOC emissions (the cleanest rating), and M1 in Finland.

For further information please contact your local **Master Builders Solutions** representative

SLIP RESISTANCE

The **Ucrete[®] DP** surface profiles have coefficient of friction as determined to EN13038 Part 4 using the 4S rubber on the wet floor as follows:

Ucrete[®] DP10 45 - 50

Ucrete[®] DP20 45 - 55

Ucrete[®] DP30 50 - 60

The **Ucrete[®] DP** surface profiles conform to DIN51130 as follows:

Ucrete[®] DP10 R11 -

Ucrete[®] DP20 R12 - or R13 V4*

Ucrete[®] DP30 R13 V8

*Depending upon specification

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 and suitable for freezer temperatures down to -40°C

Correctly installed **Ucrete[®] DP** at 9mm thickness can withstand regular and routine discharges of boiling water, hot oils and fats

NON TAINING

Ucrete[®] DP systems are non-tainting from the end of mixing, as tested by Campden Technology Ltd.

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 surface chipping may occur, brittle modes of failure resulting in cracking and disbondment are unknown with **Ucrete[®]** floors

CHEMICAL RESISTANCE

Ucrete[®] DP 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[®] 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 housekeeping employed.

Ucrete[®] DP

Defined Profile Heavy Duty Polyurethane Screed

PERMEABILITY

Ucrete[®] DP exhibits zero absorption when tested to CP.BM2/67/2.

CLEANING & HYGIENE

Ucrete[®] flooring systems are accredited for use in facilities operating HACCP based food safety systems. Regular cleaning and maintenance will enhance the life and appearance of any floor.

Ucrete[®] DP is cleaned using industry standard cleaning chemicals and equipment. The use of a food industry standard scrubber drier machine is recommended.

Detailed cleaning guidelines are available from your local **Master Builders Solutions** Construction Chemicals office.

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 concretes 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[®] DP is available in eight standard colours:

Red	Yellow	Green	Orange
Grey	Cream	Blue	Green/Brown

All colours are available with a matt or gloss finish

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.

SPECIFICATION

The Ucrete[®] DP system consists of three surface textures, DP10, DP20, and DP30, which can be installed at thicknesses of 4, 6 or 9mm depending upon the service conditions.

The specifier should specify the grade and surface texture required, as **Ucrete[®] DP 10**, **Ucrete[®] DP 20** or **Ucrete[®] DP 30** and the required thickness and whether a gloss or matt finish.

For example:

The floor finish shall be **Ucrete[®] DP 10/20/30*** (*select depending upon required texture), from BASF plc, Construction Chemicals, of 19 Broad Ground Road, Redditch, Worcestershire, B98 8YP, installed at 4/6/9*mm (*select depending on service conditions) with a matt/gloss* (select as required) finish installed in accordance with the manufacturer's instructions.

*A 4mm **Ucrete[®] DP** floor is fully resistant to liquid spillage and discharge up to 70°C. Suitable for freezer temperatures down to -15°C.

*A 6mm **Ucrete[®] DP** floor is fully resistant to liquid spillage and discharge up to 80°C and can be lightly steam cleaned. Suitable for freezer temperatures down to -25°C.

*A 9mm **Ucrete[®] DP** floor is fully resistant to high temperature spillage and discharge up to 120°C and is fully steam cleanable. Suitable for freezer temperatures down to -40°C.

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[®] floor and sealed with a suitable sealant.

APPLICATION CONDITIONS

For best results materials, substrate and air temperature should be in the range 15–25°C. Whilst Ucrete[®] 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[®] DP 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. Liquid components must be protected from frost.

Ucrete® DP

Defined Profile Heavy Duty Polyurethane Screed

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® UD 200** is physiologically nonhazardous.

For normal flooring applications **Ucrete** does not require the use of respiratory protective equipment during installation.

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

CONTACT INFORMATION

Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.

Adres: Barbaros Mah. Begonya Sok.

Nidakule Kuzey Ataşehir, C Kapısı

No:3 E/5, 34746 Ataşehir İstanbul / Türkiye

Tel: 0216 217 88 00

Mail: mbs.tr@mbcc-group.com

Web: www.master-builders-solutions.com/tr-tr

® Registered trademark of a MBCC Group member in many countries of the world

Ucrete® DP Technical Data Sheet -Revision Date: 12/2020



Typical Properties	
Density	2000 – 2090 kg/m³
Compressive strength (EN13892-2)	48 - 54 MPa
Tensile strength (BS6319 Part 7)	5 - 7 MPa
Flexural strength (EN13892-2)	12 - 14 MPa
Compressive modulus (BS 6319:Part 6)	3250 - 5000 MPa
Adhesive strength to concrete (EN13892-8)	concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	4.0 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	BFL – S1

Note:- Samples cured for 28 days at 20°C