

Ucrete CS

Heavy duty colour stable flooring for enhanced aesthetics

DESCRIPTION

Ucrete CS is a unique, colour stable, heavy duty resin floor with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 120°C.

Ucrete CS 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 and stain resistance, 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 CS is designed to meet a wide range of service and temperature requirements.

Ucrete Industrial Flooring has been widely used throughout industry for more than 50 years, many of the older floors are still in service. A detailed project reference list is available upon request.

An antistatic versions, Ucrete CS10AS and Ucrete CS20AS are available, see separate data sheet.

FEATURES AND BENEFITS

- Colour stable and non-yellowing matt sheen finish for an attractive working environment
- Very low staining when in contact with a wide range of aggressive chemicals and food industry products
- Suitable for application on to 7 day old concrete and 3 day old polymer screed
- Formulated aggregates for specifiable levels of slip resistance
- Non-tainting after 2 hours, as tested by Campden BRI
- Rapid curing, allowing one day installation and early return to service even at chill temperatures
- Does not support bacterial or mould growth

PERFORMANCE DATA

NON TAINING

Ucrete CS systems are non-tainting after 2 hours, as tested by Campden BRI. Food products should be kept out of the area during the installation process. Ensure adequate ventilation until returning the floor to service after 2 hours.

SLIP RESISTANCE

The Ucrete CS surface profiles have coefficient of friction as determined to EN13038 Part 4 using the 4S rubber on the wet floor as follows:

Ucrete CS10	45 - 50
Ucrete CS20	45 - 55
Ucrete CS30	50 - 60

The Ucrete CS surface profiles conform to DIN51130 as follows:

Ucrete CS10	R11	-
Ucrete CS20	R12	- or R13 V4*
Ucrete CS30	R13	V8

*Depending upon specification

The extremely robust aggregates used to provide the texture of Ucrete CS20 and Ucrete CS30 are designed to maintain optimum slip resistance for many years. Where there is heavy hard wheeled traffic it is recommended that Ucrete CS30 is used.

Optimum slip resistance can only be maintained with regular cleaning.

TEMPERATURE RESISTANCE

The Ucrete CS 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 CS at 9mm thickness can withstand regular and routine discharges of boiling water, hot oils and fats

IMPACT RESISTANCE

With high mechanical strengths and a low elastic modulus, Ucrete CS 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 CS 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.

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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.

Nitric acid: as used in many CIP cleaning solutions. Ucrete CS is particularly resistant to the staining commonly encountered where these are used

Ucrete CS 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.

PERMEABILITY

Ucrete CS 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 CS 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 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 CS is available in 12 colour stable matt colours

Red	Orange	Yellow	Bright Yellow
Grey	Light Grey	Cream	Blue
Light Blue	Green Light	Green	Green/Brown

SPECIFICATION

The Ucrete CS system consists of three surface textures, CS10, CS20, and CS30, 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 CS10, Ucrete CS20 or Ucrete CS30 and the required thickness and whether a gloss or matt finish.

For example:

The floor finish shall be Ucrete CS10/20/30* (*select depending upon required texture), from Master Builders Solutions UK Ltd, 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 CS floor is fully resistant to liquid spillage and discharge up to 70°C. Suitable for freezer temperatures down to -15°C.

*A 6mm Ucrete CS 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 CS 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'

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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 CS 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 CS floors can be put into service after 2 hours even at 10°C.

UCRETE LICENSED APPLICATORS

To achieve the best floor possible with a professional installation, you must use one of our fully trained Ucrete Licensed Applicators.

BIM OBJECTS

All Ucrete products have a dedicated BIM object available to download from the [NBS National BIM](#) Library or [Bimobject](#).

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.

HANDLING AND TRANSPORT

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed.

Specific safety information referring the handling and transport of this product can be found in the Material Safety Data Sheet. For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

Disposal of product and its container should be carried out according to the local legislation in force. Responsibility for this lies with the final owner of the product.

CONTACT DETAILS

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Product Data	
Density	2000 - 2090 kg/m ³
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 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	B _{FL} – S ₁

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

	
Master Builders Solutions UK Ltd 19 Broad Ground Road Lakeside, Redditch Great Britain B98 8YP	
19	
01190380, 01190381, 01190382	
EN 13813:2002	
Synthetic resin screed material	
Reaction to fire:	B _{FL} – S ₁
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:	NPD



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Ucrete CS - Master Builders Solutions UK Ltd, 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.

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

"Master Builders Solutions UK Ltd" (the Company) endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.