

Heavy-duty colour stable antistatic flooring for enhanced aesthetics

#### DESCRIPTION

Based on unique heavy-duty resins **Ucrete CSAS** offers attractive colour stable floors with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 80°C providing antistatic properties for use in explosion hazarded areas.

**Ucrete CSAS** 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 resistant to staining and yellowing, so providing a safe and attractive working environment.

Two antistatic versions are available, with a fine and medium textured surface, 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 40 years, many of the older floors are still in service. A detailed project reference list is available upon request.

## **ADVANTAGES**

- Light 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
- Range of Slip-resistant Profiles R11, R12, R13
- Non-tainting after 5 hours as tested by Campden Technology Ltd.
- · Rapid curing, allowing early return to service

#### **COLOURS**

**Ucrete CSAS** is available in 12 light stable colours:

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

All colours are available in a matt sheen finish

#### **ANTISTATIC PROPERTIES**

**Ucrete CS10AS** and **Ucrete CS20AS** comply with the requirements for floors of BS5958 and the European guidelines for Protection of workers potentially at risk from explosive atmospheres.

For details on earthing antistatic floors refer to the separate "Guidelines to Earthing of Ucrete Antistatic Floors"

## **NON-TAINTING**

**Ucrete CSAS** systems are non-tainting after 5 hours, as tested by Campden Technology Ltd. Food products should be kept out of the area during the installation process. Ensure adequate ventilation until returning the floor to service after 5 hours.

## **TEMPERATURE RESISTANCE**

The **Ucrete CSAS** resins do not start to soften until temperatures above 130°C are exceeded.

The 6mm **Ucrete CSAS** 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.





## **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 x 10 <sup>-5</sup> °C <sup>-1</sup>
Fire Testing (EN13501: Part 1)	B <sub>FL</sub> – S <sub>1</sub>
Resistance to earth (EN1081)	<10 <sup>6</sup> Ohm

Note: Samples cured for 28 days at 20°C

## CHEMICAL RESISTANCE

**Ucrete CSAS** offers exceptional resistance to a wide range of chemical aggressors. For example, **Ucrete CSAS** 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. **Ucrete CSAS** is particularly resistant to the staining commonly encountered where these are used

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. Extensive chemical resistance tables are available upon request.

**Ucrete CSAS** flooring is resistant to the staining or discolouration that occurs with other flooring systems when exposed to aggressive chemicals. Such staining is greatly reduced depending upon the standards of housekeeping employed.

## IMPACT RESISTANCE

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

## 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.





## PERMEABILITY

**Ucrete CSAS** exhibits zero absorption when tested to CP.BM2/67/2.

## SLIP RESISTANCE

The **Ucrete CSAS** surface profiles have a coefficient of friction as determined to EN13036 Part 4 using the 4S rubber on the wet floor as follows:

**Ucrete CS10AS** 45 - 50 **Ucrete CS20AS** 45 - 55

The **Ucrete CSAS** surface profiles conform to DIN51130 as follows:

Ucrete CS10AS R11 -Ucrete CS20AS R12 - or R13 V4\* \*Depending upon the specification

The extremely robust aggregates used to provide the texture of **Ucrete CS20AS** are designed to maintain optimum slip resistance for many years.

Optimum slip resistance can only be maintained with regular cleaning.

## **SPECIFICATION**

The floor finish shall be **Ucrete CS10AS/CS20AS\*** (\*select depending upon required texture), from Master Builders Solutions UK Ltd, of 19 Broad Ground Road, Redditch, Worcestershire, B98 8YP, installed at 6mm thickness in accordance with the manufacturer's instructions.

## **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 CSAS** 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 CSAS** floors can be put into service after 5 hours even at 10°C.

## **CLEANING AND 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 CSAS** is cleaned using industry standard cleaning chemicals and equipment. The use of an industry standard scrubber drier machine is recommended.

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

#### 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.

#### DISPOSAL

Containers should be disposed of in accordance with local regulations.

## 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".



#### **HEALTH AND SAFETY**

In its cured state, Ucrete is physiologically non-hazardous.

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.

\* Properties listed are based on laboratory controlled tests.

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EN 13813:2002

Synthetic resin screed material

Reaction to fire:  $B_{FL} - S_1$ NPD Release of corrosive substances: NPD Water permeability: Mechanical resistance: NPD Wear resistance: AR0,5 Bond strength: B>2,0 Impact resistance: IR>4 **NPD** Sound insulation: Sound absorption: NPD NPD Thermal resistance: **NPD** Chemical resistance: **NPD** Electrical resistance:





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## STATEMENT OF RESPONSIBILITY

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NOTE

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