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Ucrete® MF40AS

Anti-static heavy duty polyurethane floor finish

DESCRIPTION

Ucrete MF40AS is a unique HD Polyurethane resin floor which provides a smooth protective antistatic floor finish suitable for applications in predominantly dry environments.

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.

RECOMMENDED USES

Ucrete MF40AS is used in the electronics industry to protect sensitive electronic devices and in explosion hazarded areas.

It is dense and impervious, providing the ideal floor finish for applications in the electronics, food, pharmaceutical and manufacturing industries including clean room, laboratory, packing hall and warehouse applications and wherever a robust, long lived floor is required.

ACCREDITATION

- Ucrete has approval for use as flooring for HACCP accredited facilities.
- Ucrete conforms to The Leadership in Energy & Environmental Design Green Building Rating System LEED® being sustainable and environmentally friendly flooring materials.
- Ucrete floors have obtained the Indoor Air Comfort Gold certificate from Eurofins, with the low levels of emissions to the air and non-tainting properties.
- Ucrete complies with the U.S. Department of Agriculture (USDA) standards for use in federally inspected meat and poultry plants in the USA.



PROPERTIES

Density	1970kg/m ³
Compressive strength (EN13892-2)	43 – 53 MPa
Tensile strength (BS6319 Part 7)	7 – 9 MPa
Flexural strength (EN 13892-2)	18 – 21 MPa
Compressive modulus (BS 6219:Part 6)	3250 – 4000 MPa
Adhesive strength to concrete (EN 13892-2)	Concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	$3.6 \times 10^{-5} \text{ } ^\circ\text{C}^{-1}$
Fire Testing (EN13501: Part a)	B _{FL} – S ₁
Resistance to earth (EN1081)	<1 MΩ
Resistance to earth (EN61340-4-1)	<1 GΩ
Resistance of man to earth (EN61340-4-5)	<35 MΩ
Body voltage generation (EN61340-4-5)	<100 V

Anti-static Properties

Ucrete MF40AS meets the requirements of BS5958, EN1081, DIN51953 and EN61340. For detailed information on earthing anti-static floors refer to the **Ucrete Application Manual**.

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 foodstuff 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 BASF representative.

Temperature Resistance

A **Ucrete MF40AS** floor is fully resistant to liquid spillage and discharge up to 70°C. Suitable for freezer temperatures down to -15°C.



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Chemical Resistance

Ucrete MF40AS offers exceptional resistance to a wide range of chemical aggressors. For example Ucrete is resistant to spillages of the following commonly encountered classes of 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,
- Dilute and concentrated 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 housekeeping employed.

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

For detailed information, please contact your local BASF Construction Chemicals office for guidance.

Impact Resistance

With high mechanical strengths and a low elastic modulus, **Ucrete MF40AS** 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.

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 MF40AS exhibits zero absorption when tested to CP.BM2/67/2.

Slip Resistance

The **Ucrete MF40AS** floors have coefficient of friction as determined to EN13036 Part 4 with 4S rubber on the wet floor as follows:

Ucrete MF40AS 30 – 35

The **Ucrete MF40AS** surface profiles conform to DIN51130 as follows:

Ucrete MF40AS R10 V -

Optimum slip resistance can only be maintained with regular cleaning.

Cleaning & Hygiene

Regular cleaning and maintenance will enhance the life and appearance of any floor. **Ucrete MF40AS** is readily cleaned with industry standard cleaning chemicals and equipment. Please consult your local cleaning chemical or equipment supplier.

Detailed cleaning guidelines are available from your local BASF Construction Chemicals office.

SUBSTRATE QUALITY

Concrete substrates should be visibly dry and have a minimum tensile strength of 1.5 MPa.

Refer to the guide **Ucrete Application Manual**.

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 18 - 22°C. Whilst **Ucrete MF40AS** will cure out effectively over a wide range of temperatures the optimum appearance is most readily achieved under good site conditions



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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.

ESTIMATING DATA

4mm: 8 - 10kg/m²

6mm: 12 - 14kg/m²

CURING

Normally **Ucrete MF40AS** can be put into service within 24 hours.

PACKAGING

Ucrete MF40AS is supplied in:

Ucrete MF40AS Part 1	2.93kg
Ucrete MF40AS Part 2	3.29kg
Ucrete MF40AS Part 3	11kg

STORAGE

Store 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.

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 BASF Safety Data Sheet (SDS) from BASF office or website

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF 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

Field service where provided does not constitute supervisory responsibility. Suggestions made by BASF either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF, are responsible for carrying out procedures appropriate to a specific application.

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