

Ucrete[®] MF40AS

Anti-Static, Heavy Duty Polyurethane 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 MFAS 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.

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

Ucrete MF40AS meets the antistatic flooring specifications DIN 51953, BS 2050 (explosive handling areas) and obtain ESD approval according to IEC 61340.

ANTISTATIC PROPERTIES

Ucrete MF40AS meets the requirements of BS5958,

EN1081, DIN51953 and EN61340.

For detailed information on earthing anti-static floors refer to the separate datasheet 'Guidelines to Earthing of Ucrete antistatic floors'.

RECOMMENDED USES

Ucrete MF40AS is recommended for conditions requiring maximum chemical resistance in an antistatic environment.

Specific applications include:

- Electronics and component assembly
- Clean rooms
- Pharmaceutical production
- Explosive and ammunition storage & handling
- Textile and fibre production
- Chemical plants

FEATURES AND BENEFITS

- **Expert Application-** Installed only by trained and approved specialist contractors.
- **Fast application-** Can be applied to 5-day-old concrete/2 day old polymer screed.
- **Short curing time** - 8 hour access to foot traffic; 20 hours for vehicles.
- **Hygienic/safe-** Slip resistant; non-tainting; non-dusting; monolithic (minimum joints); easy to maintain; microbiologically inert.

- **Durable / long life-** Wide chemical resistance; wear and impact resistant; resists temperature from -20°C to 80°C at 6 mm thickness.
- **Prepacked-** Pre-weighed / prepacked for immediate use; batch-to-batch colour matched for consistency.

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 **Afsset in France** and **M1** in **Finland**.
- Ucrete UD200 is non tainting from the end of mixing, as tested by the Campden Technology Ltd

PERFORMANCE DATA

Density (Kg/m ³) (BS6319:Part 5)	1,970
Compressive Strength (MPa) (BS6319:Part 2)	48-53
Tensile Strength (MPa) (ISO R527)	9
Flexural Strength (MPa) (ISO 178)	21
Compressive Modulus (MPa) (BS 6319 – Part 6)	3250 – 4000
Concrete Adhesion(EN 13892 - 8)	Concrete Failure
Coeff. Thermal Expansion (°C ⁻¹) (ASTM C531:Part 4.05)	3.6x10 ⁻⁵
Thermal Conductivity (BS8740)	0.9 W/m°C
Water absorption (CP:BM 2/67/2)	0 mL
Fire Resistance (EN 13501: Part 1)	B _{FL} – S ₁
Sensory evaluation (C & CFRA method TES-S-002)	No taint

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Resistance to earth (Ω)	
EN 61340-4-1	< 10 ⁶
EN 1081	< 10 ⁶
Resistance of man to earth (M Ω) (EN 61340-4-5)	<35

Body voltage generation (V)	<100
VOC content: (HK prod code P10-05)	10 g/L
Slip Resistance	
EN 13036 (4S Rubber)	35
DIN 51130	R10
Service temperature	
4 mm	-15°C to 70°C
6 mm	-15°C to 80°C
<i>Samples cured for 28 days at 20°C. The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.</i>	

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 MFAS 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 debonding are unknown with Ucrete floors.

Chemical Resistance

Ucrete MFAS 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 flavorings 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 discoloration may occur with some chemicals, depending upon the nature of the spill-age 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 Master Builders Solutions Construction Chemicals office for guidance.

COLORS

Ucrete MF40AS 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

For information about application, please obtain a copy of the Master Builders Solutions "Application Guide for **Ucrete**[®]" from your local representative.

ESTIMATING DATA

Ucrete MF40AS should be installed as per the consumption rates given below:

Thickness	Consumption
4mm	8 - 10 Kgs/m ²
6mm	12 - 14 Kgs/m ²

PACKAGING

Ucrete MF40AS is supplied as a unit for immediate use, consisting of:

Ucrete MF40AS Part 1	2.933kg
Ucrete MF40AS Part 2	3.29kg
Ucrete MF40AS Part 3	11.00kg
Ucrete Liquid Polykit Pigment	0.5Kg


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SHELF LIFE

Ucrete MF40AS 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

Please refer the Material Safety Data Sheet for handling and storage of this product.

	
Master Builders Solutions Construction Chemicals 19 Broad Ground Road Lakeside, Redditch Great Britain B98 8YP	
16	
01160177	
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:	ER ² <10 ⁶ -ER ³ <10 ⁶



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