BASF
The Chemical Company

Ucrete®MF

4-6mm smooth, matt polyurethane floor finish

Description

Ucrete®MF provides a smooth protective floor finish suitable for applications in predominantly dry environments.

It is dense and impervious providing the ideal floor finish for applications in the 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 throughout the industry for more than 30 years, many of the older floors are still in service. A detailed project reference list is available upon request.

Colours

Ucrete®MF is available in five standard colours:
Red Yellow Green Grey Cream

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.

Typical physical properties*

Samples cured for 28 days at 20°C

Density (BS 6319 : Part 5) kg/m²	1970
Compressive strength (BS 6319 : Part 2), N/mm²	55
Tensile strength (ISO R527), N/mm²	9
Flexural strength (ISO 178), N/mm²	21
Dynamic elastic modulus (ASTM C597-83), N/mm²	14000
Adhesive strength to concrete (BS 6319 : Part 4) N/mm²	concrete failure
Coefficient of thermal expansion (ASTM C531 : Part 4.05), °C	3.6×10^{-5}
Thermal conductivity (BS 874), W/m. °C	0.9
Taber abrasion resistance (1000g, 1000 cycles) (ASTM D4060) weight loss, mg CS17 wheel H22 wheel	 120 1410
Water absorption (CP.BM 2/67/2) ml	0
Surface spread of flame (BS 476 : Part 7)	Class 2
Sensory evaluation (C&CFRA method TES-S-002)	No taint
Resistance to earth, DIN 51953 EN 1081	$< 10^6$ ohm $< 10^6$ ohm

*Properties listed are only for guidance and are not a guarantee of performance

Performance data

Antistatic properties

The anti-static version, Ucrete®MF/AS, complies with the requirements of BS 5958, EN 1081 and DIN 51953.

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

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Temperature resistance
The Ucrete®MF floors are fully serviceable up to 60°C.

Non Tainting
Ucrete®MF is solvent free and non-tainting as tested by Campden & Chorleywood Food Research Association.

Chemical resistance
Ucrete®MF 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 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 house keeping employed.

Extensive chemical resistance tables are available in the separate datasheet 'A guide to the chemical resistance of Ucrete Flooring'. For detailed information, please contact your local BASF Construction Chemicals SA office for guidance.

Impact resistance
With high mechanical strengths and a low elastic modulus, Ucrete®MF is very resilient and able to withstand severe impact loads. Whilst no material is indestructible and surface chipping may occur, brittle modes of failure resulting in cracking and disbondment are unknown in Ucrete® floors.

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

Permeability
Ucrete®MF exhibits zero absorption when tested to CP.BM2/67/2.

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 concrete 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 offer no benefit and should not be used with Ucrete® floors.

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Coverage
4 mm: 8-10 kg/m²
6 mm: 12-14 kg/m²

Curing
Normal Ucrete®MF floors can be put into service within 24 hours.

Specification
The floor finish shall be Ucrete®MF from BASF Construction Chemicals SA installed at 4 – 6mm in accordance with the manufacturers' instructions.

Substrate quality
Concrete substrate 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'

Application conditions
For best results materials, substrate and air temperature should be in the range of 18-22°C. Whilst Ucrete®MF will cure out effectively over a wide range of temperatures the optimum appearance is most readily achieved under good site conditions.

Storage
Store under cover, out of direct sunlight and protect from extremes of temperatures.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF Construction Chemicals SA's Technical Services Department.

Safety precautions
As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs (which can also be tainted with vapour until product is fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

Note
Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF Construction Chemicals SA representative. BASF Construction Chemicals SA. reserves the right to have the true cause of any difficulty determined by accepted test methods

Quality and care
All products originating from BASF Construction Chemicals' SA facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001:2000.

BASF Construction Chemicals South Africa (Pty) Ltd
P.O. Box 420, Westonaria, 1780
11 Pullinger Street, Westonaria, 1779
Tel: +27 11 754 1343
Fax: +27 11 754 1105
e-mail: basfcc@mweb.co.za

852 Sixteenth Road, Midrand
PO Box 2801, Halfway House, 1685
Tel: +27 11 203 2405

Website : basf-cc.co.za