



The Chemical Company

UCRETE MF and MF/AS

4 – 6 mm Heavy Duty Polyurethane Floor Finish

Unique HD Polyurethane Resin Technology with Exceptional Resistance to Aggressive Chemicals.

Description of Product

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

Performance Data

Antistatic Properties

The antistatic version, UCRETE[®] MF/AS, complies with the requirements of BS5958, EN1081 and DIN51953.

For more detailed information on earthing anti-static floors refer to the separate datasheet 'Guidelines to Earthing of UCRETE[®] antistatic floors'.

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 the 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 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 house keeping 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.

BASF Construction Chemicals (UK) Ltd,
Albany House,
Swinton Hall Road, Swinton,
Manchester M27 4DT
Tel: +44 (0) 161 794 7411
Fax +44 (0) 161 727 8547
www.basf-cc.co.uk



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Impact Resistance

With high mechanical strengths and a low elastic modulus, UCRETE[®] MF 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

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.

Colours

UCRETE[®] MF is available in six standard colours:

Red Yellow Green Orange 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.

Technical Data

samples cured for 28 days at 20°C

Density (BS 6319:Part 5), Kg/m ³	1970
Compressive strength (BS 6319:Part 2), N/mm ²	55
Tensile strength (ISO R527), N/mm ²	9
Flexural strength (ISO 178), N/mm ²	21
Dynamic elastic modulus (ASTM C597-83), N/mm ²	14000
Adhesive strength to concrete (BS6319:Part 4), N/mm ²	concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05), °C ⁻¹	3.6 x 10 ⁻⁵
Thermal conductivity (BS 874), W/m. °C	0.9
Taber abrasion resistance (1000 g, 1000 cycles) (ASTM D4060) weight loss, mg	
CS17 wheel	120
H22 wheel	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, DIN51953 EN1081	< 10 ⁶ ohm < 10 ⁶ ohm

Specification

The floor finish shall be UCRETE[®] MF from BASF Construction Chemicals (UK), of 19 Broad Ground Road, Redditch, Worcestershire, B98 8YPB, installed at 4 - 6 mm in accordance with the manufacturers' 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'

Coverage

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

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Curing

Normally UCRETE[®] MF floors can be put into service within 24 hours.

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. Parts 1 & 2 must be protected from frost.

Application Conditions

For best results materials, substrate and air temperature should be in the range 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

Ucrete MF and MF/AS BASF Construction Chemicals UK Ltd Version 4, July 2006

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.

Powder Products

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during 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:

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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