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UCRETE® MF

Heavy duty Polyurethane Floor Finish

DESCRIPTION OF PRODUCT

UCRETE® MF is a unique HD Polyurethane resin floor with exceptional resistance to aggressive chemicals.

It 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 40 years; many of the older floors are still in service. A detailed project refer- ence list is available upon request

PERFORMANCE DATA

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

NON-TAINTING

UCRETE® MF is solvent free and non-tainting from the end of mixing, as tested by the Campden Technology Ltd.

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 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 BASF Construction Chemicals 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. While no material is indestructible and surface chipping may occur, brittle modes of failure resulting in cracking and disbondment are unknown with **UCRETE®** floors.

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TYPICAL PROPERTIES	
Density	1970 kg/m³
Compressive strength (EN13892-2)	48 - 53 MPa
Tensile strength (BS6319 Part 7)	9 MPa
Flexural strength (EN13892-2)	18 - 21 MPa
Compressive modulus (BS 6319:Part 6)	3250 - 4000 MPa
Adhesive strength to concrete (EN13892-8)	concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	3.6×10^{-5} $^{o}C^{-1}$
Fire Testing (EN13501: Part 1)	$B_{FL} - S_1$

Note:- Samples cured for 28 days at 20 ^{o}C

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

CLEANING & HYGIENE

UCRETE® flooring systems are accredited for use in facili- ties operating HACCP based food safety systems.

Tests undertaken by Campden Technology Ltd on the removal of Acinetobacter Calcoaceticus concluded that the cleanability of **UCRETE® MF** was comparable to stain-less steel

Regular cleaning and maintenance will enhance the life and appearance of any floor.

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

SLIP RESISTANCE

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

UCRETE® MF 35

The **UCRETE® MF** surface profiles conform to DIN51130 as follows:

UCRETE® MF R10 V

Optimum slip resistance can only be maintained with regular cleaning.

COLOURS

UCRETE® MF is available in nine standard colours:

Red	**Yellow**	**Green**
Grey	**Light Grey**	**Blue**
Cream	**Orange**	**Green/Brown**

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.

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UCRETE® MF

SPECIFICATION

The floor finish shall be **UCRETE® MF**, from BASF Construction Chemicals 852 Sixteenth Rd, Midrand, South Africa, installed at 4/6*mm in accordance with the manufacturer's instructions. *(select as required)

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 **MasterSeal® CR 460** sealant.

APPLICATION CONDITIONS

For best results materials, substrate and air temperature should be in the range 15–25ºC. Whilst **UCRETE® MF** will cure out effectively over a wide range of temperatures the optimum appearance is 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.

Condensation and low temperatures can cause a white bloom on the surface.

COVERAGE

4mm: 8 - 10kg/m^2
6mm: 12 - 14kg/ m^2

CURING

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

CE

BASF Construction Chemicals
19 Broad Ground Road
Lakeside, Redditch
Great Britain B98 8YP

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01040061

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:	NPD

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STORAGE

In covered warehouse conditions, above 5ºC and below 30ºC and out of direct sunlight. Materials must be raised off the floor and kept dry. Liquid components must be protected from frost.

DISPOSAL

Part 2 containers should be decontaminated with 5% sodium carbonate (washing soda) solution after use and disposed of as building waste in accordance with local regulations.

WARNINGS AND PRECAUTIONS

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.

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