

UCRETE MF

Medium-duty smooth-finish polyurethane concrete flooring

Description

UCRETE MF is a three-part self smoothing polyurethane concrete. It is designed for application at a thickness of 3-6mm.

Uses

UCRETE MF is used for dry process, packing and storage areas that are subject to light to medium traffic (including fork-lift trucks) and occasional chemical spillage. They have a smooth semi-matt finish which gives maximum ease of cleaning.

Benefits

- Expert installation
 - Installed only by fully-trained applicators.
- Fast application
 - Can be laid on 7-day-old concrete / 3-day-old polymer screed.
 - Short curing times.
- Hygienic and safe
 - Non-tainting
 - Will not support bacterial growth
 - Monolithic – minimises joints
 - Easy to clean
 - Non-dusting
- Long life
 - Resistant to almost all chemicals
 - Excellent wear and impact resistance
 - Resistant to temperatures upto 60°C
- Proven track record
 - 25 years of project references

Packaging

UCRETE MF is supplied as three factory-batched components.

Part 1 : 2.67kg net weight.
 Part 2 : 2.86kg net weight.
 Part 3 : 14.60kg net weight.
 Total pack size 20.13kg.

Colours

UCRETE MF is available in six standard colours: Cream, Green, Grey, Orange, Red, Yellow
 Other colours may be available to meet special requirements but will be subject to minimum order quantities and may require extended lead times.

Typical physical properties* (a)

Density (BS 6319 Part 5)	1970kg/m ³
Compressive strength (BS 6319 Part 2)	55N/mm ²
Tensile strength (ISO R527)	9N/mm ²
Flexural strength (ISO 178)	21N/mm ²
Dynamic elastic modulus (ASTM C597-83)	14000N/mm ²
Adhesive strength to concrete (BS 6319 : Part 4)	concrete failure
Co-efficient of thermal expansion (ASTM C531 Part 4.05)	3.6 x 10 ⁻⁵ °C ⁻¹
Thermal conductivity (BS 874)	0.9W/m°C
Taber abrasion resistance (1000 g, 1000 cycles) (ASTM D4060) weight loss, CS17 wheel H 22 wheel	120mg 1410 mg
Water absorption (CP.BM 2/67/2)	0ml
Surface spread of flame (BS 476 : Part 7)	Class 2

(a) samples cured for 28 days at 20°C

Application

Substrate quality

Substrates will normally be concrete or polymer modified screeds. Other substrates may be suitable; consult your specialist applicator or your local BASF sales office.

All substrates must be clean and free from dust and loose particles. Concrete and other cementitious substrates must be visibly dry and have a minimum tensile (pull-off) strength of 1.5 N/mm². UCRETE MF may be applied to substrates of lower strength but the long-term performance of the floor may be affected. All traces of contaminants, such as oil, fats, paint residues, chemicals, algae and laitance, should be removed.

Preparation of substrate

As with all surface coatings, proper surface preparation is vital to ensure the successful application and performance of UCRETE MF.

The preferred method of surface preparation is vacuum shot blasting. Other methods, such as air impact hammer (scabbler) – provided that the substrate is not damaged, concrete surface planer, grit blasting, wire

brush scarifier, surface grinder, drum sander and flame spaller, can be satisfactory. Chemical methods, such as acid etching, are not reliable and not recommended.

Priming

All UCRETE MF floors should be applied onto cured PRIMER SC or a UCRETE MF scratch out.

UCRETE MF

Mixing and application

Full details of correct mixing and application procedures are given in the UCRETE Application Manual which is available to licensed and specialist applicators only.

Curing

The following table should be used as a guide at 15 to 25°C.

Foot traffic	8 hours
Light traffic	24 hours
Full traffic and chemical resistance	48 hours

Coverage

Coverage is influenced by substrate roughness, porosity and temperature

Chemical resistance

UCRETE MF will resist spillages of:

- dilute and concentrated acids: hydrochloric, nitric, phosphoric and sulphuric
- dilute and concentrated alkalis, including sodium hydroxide to 50% concentration
- most dilute and concentrated organic acids
- fats, oils and sugars
- mineral oils, kerosene, gasoline and brake fluids
- most organic solvents

Resistance is maintained in many cases to 60°C, which should be regarded as the maximum service temperature.

Detailed information on chemical resistance is available from BASF Middle East.

Cleaning

Cleaning of plant and equipment should be undertaken well away from the application area. Xylene may be used to clean equipment, tools and spillages. In the case of spillages, excess material must first be absorbed onto sawdust or other disposable absorbent medium. Use correct handling procedures with solvents and take care to avoid any accidental spillage or splashes onto coated surfaces.

Part 2 containers may contain small amounts of unreacted diisocyanates (MDI). Therefore they must be decontaminated with a 5% solution of soda ash (sodium carbonate or washing soda) prior to disposal as building waste.

Maintenance

Regular cleaning and maintenance will prolong the life of all resin floors, enhance the appearance and reduce the tendency to retain dirt.

Specialised floor cleaning equipment and chemicals are ideally available and the suppliers are able to offer advice on appropriate cleaning regimes. Consult your specialist applicator or BASF Middle East office for advice.

Storage

All parts of UCRETE MF should be stored under cover and free off the ground. Storage conditions should be dry, above 5°C and below 30°C. Parts 1 must not be allowed to freeze.

Health and safety

Appropriate health and safety advice can be found in the Material Safety Data Sheets.

Users are advised to wear gloves and eye protection when mixing and applying UCRETE MF.

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 products is fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9000, ISO 14001 and OHSAS 18001.

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

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