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UCRETE® MF

High Performance Polyurethane Concrete Coating with Smooth Surface Finish Obtained from the Modification of Polyurethane Based Resins with Special Additives and Chemicals

Description of the Product

UCRETE® MF is a floor coating system applied in a thickness of 3-6 mm having high chemical and solvent strength, obtained from the modification of polyurethane based resins with special additives and chemicals, formed with special filling addition.

Fields of Application

UCRETE® MF, is used on areas requiring long lasting and resistant coating under middle-to-heavy traffic and chemical loads.

- Food, Medicine and chemical industries.
- Laboratories.
- Production sites.

- Industrial plants like packaging and warehousing areas.

Features and Benefits

In addition to the general Features and Benefits of **UCRETE®** coatings; **UCRETE® MF** has;

- **Thermal Resistance:** 3 mm **UCRETE® MF** coating does not lose its feature at constant 60°C. Thermal Strength increases as the thickness increases.
- **Odourless:** It is a non solvent and odourless coating according to Campden & Chorleywood Food tests.
- **Stroke Resistance:** It has a high resistance to point strokes together with its high mechanical features due to Low Elasticity Module. It does

Technical Data

UCRETE® MF Base Coat Part 1	Polyurethane Resin
UCRETE® MF Base Coat Part 2	Polyurethane Hardener
UCRETE® MF Base Coat Part 3	Special Filler
UCRETE® MF Base Coat Part 4	Liquid Pigment
Density (BS 6319:Part 5)	1970 kg/m ³
Compressive Strength (EN 13892-2)	48-53 MPa
Tensile Strength (BS 6319 Part 7)	9 N/mm ²
Flexural Strength (EN 13892-2)	18-21 MPa
Dynamic Elastic Modulus (ASTM C597-83)	14000 N/mm ²
Adhesive Strength (EN 13892-8)	Concrete Failure
Taber Abrasion Resistance (ASTM D4060)	
CS17 Wheel	120 mg
H22 Wheel	1410 mg
Water Absorption (CP.BM 2/67/2)	0 ml
Thermal Expansion (ASTM C531:Part 4.05)	$3.6 \times 10^{-5} \text{ }^{\circ}\text{C}^{-1}$
Thermal Conductivity (BS 874)	0.9 W/m ^o C
Fire Classification (BS EN13501-1)	B _{fl} – S1
Surface Spread of Flame (BS 476:Part 7)	Class 2
Color	Standart Colors – Pls Contact BASF Responsible



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not induce partial breakings and cracks under these impacts.

- **Absorption:** UCRETE® MF has zero absorption according to the tests under CP.BM2/67/2.
- **Humidity Tolerance:** UCRETE® MF industrial floor coatings are suitable to be applied on damp surfaces and can be used on 7-day concrete or on the water-saturated old concretes on which steam stopper layer is applied.
- **Cleaning:** The smooth and mat surface finish provides easy-to-clean feature.

Application Method

All UCRETE® applications should be performed by Specialist Practitioner Dealers. Floor quality and structure should be analyzed by **BASF Türk Kimya Sanayi ve Tic. Ltd. Şti.** Technical Employees and/or **BASF Türk Kimya Sanayi ve Tic. Ltd. Şti.** Specialist Practitioner Dealers before choosing the proper system.

Curing

In the applications conducted between +15°C-+25°C:

- Pedestrian Traffic-8 hours
- Light Traffic-24 hours
- All mechanic and chemical usage-48 hours

Coverage

Purpose	Material	Coverage (kg/m ²)
Scraping Undercoat	UCRETE® MF	1.00 - 2.00
Coating	UCRETE® MF	7.00 - 14.00

Watch Points

- Avoid application under excessive heat or wind and/or when the ambient and/or substrate temperature is below +10°C or above +30.

Furthermore, application should not be made under excessively hot temperature levels, or rain or windy conditions

- As the application material should have the same temperature as the ambient and substrate temperature, make sure it has been stored for at least 1-2 days at the same temperatures before application. In cold conditions, the ambient, substrate and material temperatures should be preconditioned to +20°C-+25°C by artificial means to make the material more workable.
- UCRETE® floor coating systems should be applied by specialists.
- The operating and reaction periods of resin based systems depend on the ambient and substrate temperatures as well as relative humidity. Under lower temperatures the reaction time is longer and this increases pot life, coating interval and working time. In addition to this, the Coverage increases as the viscosity gets higher. High temperatures increase chemical reactions and the above mentioned time decreases accordingly. For the material to be cured properly, ambient and substrate temperatures should not fall below specified limits. After application, the material should be protected from direct contact with water minimum for 24 hours. Within this period, contact with water can cause a surface carbonation and/or surface tackiness, both of which must be removed. In such cases, the overall coating should be removed from the floor and renewed.
- UCRETE® MF is supplied in working packs which are pre-packaged in the exact ratio. No solvent should be added.
- UCRETE® coatings are designed for high chemical, thermal and mechanical strengths.
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- The colors mentioned above can turn yellow under UV, but the performances should not be derogated. This effect can be seen mostly in the light colors. The mixing should be performed by means of mechanical mixers equipped with epoxy/ polyurethane mixing bit, with 300 and 400 rpm and special mortar mixing equipments. Empty packs should be consolidated and disposed of properly.

Cleaning of Tools

Used tools and equipment must be cleaned carefully with an appropriate solvent. Once cured **Ucrete®** can only be removed by mechanical means.

Packaging

20.28 kg set

Storage

The product should be stored in its original package, in a cool and dry place protected from frost. For short term storage, maximum 3 palettes should be placed on top of each other and the shipment should be made on a 'first come, first go' basis. Palettes should not be placed on top of each other during long term storage.

Shelf Life

The shelf life is 6 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Health and Safety Precautions

It is dangerous to approach the application

sites with fire. Fresh air should be circulated in the storage and the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge **BASF Türk Kimya Sanayi ve Tic. Ltd. Şti.** is only responsible for the quality of the product. **BASF Türk Kimya Sanayi ve Tic. Ltd. Şti.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones (01/2015).

	
<small>BASF Construction Chemicals (UK) Ltd 19 Broad Ground Road Lakeside, Redditch Great Britain B98 8YP</small>	
04	
<small>EN 13813 SR - B>2,0 - AR0,5 - IR>4 - B_n - S1</small>	
Synthetic resin screed/coating	
Wear Resistance	AR0,5
Impact Strength	IR > 4
Bonding Strength	B > 2,0
Reaction to Fire	B _s -S1