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UCRETE® DP

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

Description of the Product

UCRETE® DP is a floor coating system obtained from the modification of polyurethane based resins with special additives and chemicals, formed with the addition of Special Filling, designed to be used on damp and dry surfaces with its non-slippery surface having perfect chemical and solvent strength, and applied in a thickness of 4-9 mm with adjustable surface roughness.

There are three different application models available according to the surface roughness;

UCRETE® DP 10 is a floor coating system applied in a thickness of 4-9 mm with perfect chemical and solvent strength and a slightly rough surface. Slipping Resistance R11 (DIN 51130) **UCRETE® DP 20**, is a floor coating system applied in thickness of 4-9 mm with perfect chemical and solvent strength and a slightly rough surface. Slipping Resistance R13 (DIN 51130) **UCRETE® DP 30** has perfect chemical and solvent strength and a slightly rough surface.

-It is a coating system applied in thickness of 9 mm. Slipping resistance R13 (DIN 51130)

Technical Data

UCRETE® DP Base Coat Part 1	Polyurethane Resin
UCRETE® DP Base Coat Part 2	Polyurethane Hardener
UCRETE® DP Base Coat Part 3	Special Filler
UCRETE® DP Base Coat Part 4	Liquid Pigment
UCRETE® DP Top Coat Part 1	Polyurethane Resin
UCRETE® DP Top Coat Part 2	Polyurethane Hardener
UCRETE® DP Top Coat Part 3	Special Filler
UCRETE® DP Top Coat Part 4	Liquid Pigment
Density (BS 6319:Part 5)	2000 - 2090 kg/m ³
Compressive Strength (EN 13892-2)	48 - 58 MPa
Tensile Strength (BS 6319 Part 7)	5 - 7 MPa
Flexural Strength (EN 13892-2)	12 - 14 MPa
Compressive Modulus (BS 6319:Part 6)	3250 - 5000 MPa
Adhesive Strength (EN 13892-8)	Concrete Failure
Thermal Expansion (ASTM C531:Part 4.05)	$2 - 6 \times 10^{-5} \text{ }^{\circ}\text{C}^{-1}$
Thermal Conductivity (BS 874)	1,1 W/m °C
Fire Classification (BS EN13501-1)	B _{FL} - S1
Color	Standart Colors – Pls Contact BASF Responsible



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Fields of Application

UCRETE® DP is used in the following areas subject to middle-heavy traffic and chemical load with long life requiring durable non-slipping coating thanks to its three different levels of thickness and three different roughness designs for surfaces:

- Food, Medicine and chemical industries.
- Laboratories.
- Production sites.
- It is suitable for using in industrial facilities such as packaging facilities.

Features and Benefits

UCRETE® in addition to the general Features and Benefits of coatings; **UCRETE® DP**;

- **Non-slipping:** **UCRETE® DP** non-slipping features are in accordance with Health and Safety Executive Food Sheet No 22 and HSE Guidance Sheet 156.
- **Ucrete® DP**, In TRRL slipping test conducted with 4S rubber, the following data is obtained
 - **UCRETE® DP 10:** 50-60
 - **UCRETE® DP 20:** 55-75
 - **UCRETE® DP 30:** 60-80
 - **UCRETE® DP** surface roughness can be classified according to DIN 51130:
 - **UCRETE® DP 10:** R11
 - **UCRETE® DP 20:** R13-V4
 - **UCRETE® DP 30:** R13-V8
- **Odourless:** It is a non solvent and odorless coating according to Campden & Chorleywood Food tests.
- **Stroke Resistance:** It has high resistance to point strokes together with its high mechanical features due to Low Elasticity Module. It does not induce partial breakings and cracks under these impacts.
- **Absorption:** **UCRETE® DP** has zero absorption according to the tests under

CP.BM2/67/2.

- **Humidity Tolerance:** **UCRETE®** industrial floor coatings are suitable to apply 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.

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

UCRETE® DP 10

Purpose	Material	Coverage (kg/m ²)
Coating for 4 mm	BASE COAT B4	6.00 - 8.00
for 6 mm	BASE COAT B6	10 - 12
for 9 mm	BASE COAT B9	16 - 18
Scattered Sand	Filler F5	4.0 - 6.0
Final	Ucrete® Topcoat	0.4 - 0.6



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UCRETE® DP

UCRETE® DP 20

Purpose	Material	Coverage (kg/m ²)
Coating for 4 mm	BASE COAT B4	6.00 - 8.00
for 6 mm	BASE COAT B6	10 - 12
for 9 mm	BASE COAT B9	16 - 18
Scattered Sand	Filler F20	4.0 - 5.0
Final	Ucrete® Topcoat	0.7 - 0.9

UCRETE® DP 30

Purpose	Material	Coverage (kg/m ²)
Coating for 4 mm	BASE COAT B4	6.00 - 8.00
for 6 mm	BASE COAT B6	10 - 12
for 9 mm	BASE COAT B9	16 - 18
Scattered Sand	Filler F25	4.0 - 5.0
Final	Ucrete® Topcoat	1.0 - 1.2

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 ambient and substrate temperature, make sure it has been stored for at least 1-2 days at the same temperature before application.
- In cold conditions, the ambient, substrate and material temperatures should be preconditioned to +20°C-+25°C by artificial means.
- **UCRETE®** floor coating systems must 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 the Coverage is increased as the viscosity gets higher. High temperatures ignite stronger chemical reactions. For the material to be cured properly, the ambient and substrate temperatures should not fall below specified limits. After application, the material should be protected from direct contact with water for approximately 24 hours. Within this period, contact with water can cause surface carbonation and/or surface tackiness, both of which must be removed. In such cases overall coating should be removed from the surface and renewed.

- **UCRETE® DP** is supplied as ready-to-use sets. No solvent should be added.
- **UCRETE®** coatings are designed for high chemical, thermal and mechanical strengths. The colors mentioned above can turn yellow under UV, but the performances shall not be derogated. This effect can be seen in the light colors most of all.
- 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 fully cured **UCRETE®** can only be removed by mechanical means

Packaging

Base Coat: 18.88 kg set
Top Coat: 3.72 kg set



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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 palletes should be placed on top of each other and the shipment should be made on a 'first come, first go' basis. Palletes 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).

	
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EN 13813 SR - B>2,0 - AR0,5 - IR>4 - B_H - S1	
Synthetic resin screed/coating	
Wear Resistance	AR0,5
Impact Strength	IR > 4
Bonding Strength	B > 2,0
Reaction to Fire	B _s -S1