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UCRETE® IF

Iron Aggregate Heavy Duty Polyurethane Floor Finish

Description of the Product

UCRETE® IF is a unique HD polyurethane resin floor which provides an extremely tough surface for environments subject to extreme impact and abrasion. Its dense and impervious iron armoured surface provides protection against severe abrasion making it the ideal floor finish for applications in the waste management, heavy engineering and manufacturing industries and wherever a robust long lived floor is required.

Fields of Application

UCRETE® IF is used to protect horizontal surfaces including:

- Waste transfer station
- Transition strips
- Heavy engineering workshops

- Heavy process areas
- Under mixing heads
- Storage bunkers
- Loading docks
- Heavy equipment maintenance facilities

Features and Benefits

- Can be applied onto 7 day old concrete or 3 day old polymer screeds
- Fully serviceable within only 24 hours (subject to temperature)
- Solvent free and non-tainting
- Specially treated iron aggregates for maximum abrasion resistance
- Long lived and low maintenance
- Steam cleanable
- No primer required, enabling rapid installation in a single application
- **Rapid Installation:** Specifications are

Technical Data

UCRETE® IF Base Coat Part 1	Polyurethane Resin
UCRETE® IF Base Coat Part 2	Polyurethane Hardener
UCRETE® IF Base Coat Part 3	Special Filler
UCRETE® IF Base Coat Part 4	Special Filler
UCRETE® IF Base Coat Part 5	Liquid Pigment
Density (BS 6319:Part 5)	2800 kg/m ³
Compressive Strength (EN 13892-2)	55-60 MPa
Tensile Strength (BS 6319 Part 7)	8 MPa
Flexural Strength (EN 13892-2)	17 MPa
Compressive Modulus (BS 6319:Part 6)	3350 MPa
Adhesive Strength (EN 13892-8)	Concrete Failure
Fire Classification (BS EN13501-1)	B _{fl} – S1
Color	Standart Colors – Pls Contact BASF Responsible





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available that enable **UCRETE® IF** and primer to be installed and cured within a 12 hour application window.

- **Temperature Resistance:** Ucrete IF floors are fully resistant to high temperature spillage and discharge up to 120°C and are fully steam cleanable. **UCRETE® IF** is suitable for use where trafficked by racking with hot steel wheeled racks and bins, for example upon their removal from ovens or autoclaves.
- **Non Tainting:** **UCRETE® IF** is solvent free and non tainting.
- **Chemical Resistance:** **UCRETE® IF** offers exceptional resistance to a wide range of chemical aggressors. For example **UCRETE® IF** 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 Mineral 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.
 - Some strong mineral acids and oxidizing agents may cause some corrosion of the iron aggregates.
 - 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® IF** 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
- **Abrasion Resistance:** The carefully selected mineral and iron aggregates impart very high abrasion resistance characteristics. In heavy wear areas the iron becomes annealed on the surface providing long term protection.
- **Permeability:** **UCRETE® IF** 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.
- **Slip Resistance:** The **UCRETE® IF** surface profiles have coefficient of friction as determined to EN 13036 Part 4 using the 4S rubber on the wet floor as follows: **UCRETE® IF** 40-45
- Optimum slip resistance can only be maintained with regular cleaning.
- **Cleaning:** Regular cleaning and maintenance will enhance the life and appearance of any floor. **UCRETE® IF** is readily cleaned with



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industry standard cleaning chemicals and equipment. The use of alkaline based cleaners is recommended. Please consult your local cleaning chemical or equipment supplier.

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 - +25°C:
Pedestrian Traffic-8 hours
Light Traffic-12 hours
All mechanic and chemical usage-24 hours
(special conditions-12 hours)

Coverage

9 mm thickness: 28-30 kg/m²

Watch points

- Avoid application under excessive heat or wind and/or when the ambient and/or substrate temperature is below +10 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- +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® IF 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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- UCRETE® coatings are designed for high chemical, thermal and mechanical strengths. 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



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mixing equipments. Empty packs should be consolidated and disposed of properly.

Cleaning of tools

Re-usable tools should be carefully cleaned immediately after use with solvent. Once cured, UCRETE® can only be removed by mechanical means.

Packaging

18.23 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 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 Instructions

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 - B₁ - S1	
Synthetic resin screed/coating	
Wear Resistance	AR0,5
Impact Strength	IR > 4
Bonding Strength	B > 2.0
Reaction to Fire	B ₁ -S1