



The Chemical Company

UCRETE IF

Iron Aggregate Heavy Duty Polyurethane Floor Finish

Unique HD Polyurethane Resin Technology with Exceptional Resistance to Impact and Abrasion

Description of Product

UCRETE IF provides an extremely tough resurfacing for environments subject to extreme impact and abrasion.

It is 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.

UCRETE Industrial Flooring has been widely used throughout industry for more than 30 years; many of the older floors are still in service. A detailed project reference list is available upon request

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 & 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

Performance Data

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 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



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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.

Colours

UCRETE IF floors are available in 6 standard colours:

Red Yellow Green Orange Grey & Cream

The UCRETE resin 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.

Technical Data

samples cured for 28 days at 20°C

Density (BS 6319:Part 5)	2800 kg/m ³
Compressive strength (BS 6319:Part 2)	60 MPa
Tensile strength (ISO R527)	8 MPa
Flexural strength (ISO 178)	17 MPa
Compressive modulus (BS 6319:Part 6)	3350 MPa
Adhesive strength to concrete (BS6319:Part 4),	concrete failure
Fire Testing: EN13501: Part 1 Surface spread of flame (BS 476:Part 7)	B _{FL} – S1 Class 2

UCRETE IF

Specification

The floor finish shall be UCRETE IF from BASF Construction Chemicals (UK), of 19 Broad Ground Road, Redditch, Worcestershire, B98 8YPB, installed at a minimum 9 mm in accordance with the manufacturers' instructions.

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 45 - 60

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

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'

Coverage

9 mm: 25.5 kg/m²

Curing

Normally UCRETE IF floors can be put into service within 24 hours.

Storage

In covered warehouse conditions, above 5°C and below 30°C and out of direct sunlight. Materials must be raised off the floor and kept dry. Parts 1 & 2 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 & precautions

In its cured state, UCRETE PRIMER RG is physiologically non-hazardous.

Operatives should consult the CoSHH risk assessment and their work instructions.

	
BASF Construction Chemicals (UK) Ltd 19 Broad Ground Road Lakeside, Redditch Great Britain B98 8YP	
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EN 13813 SR-B>2,0-AR0,5-IR>4	
Synthetic resin screed material	
Reaction to fire:	NPD
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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Health and Safety

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Solvent Based Products

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying.

Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

Powder Products

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

Spillage

Chemical products can cause damage; clean spillage immediately.

Disclaimer

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The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

01/2010 BASF_CC-UAE

* Properties listed are based on laboratory controlled tests.

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