

Ucrete IF

Iron armoured heavy duty resin floor finish

DESCRIPTION

Ucrete IF is a unique heavy duty 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.

Ucrete Industrial Flooring has been widely used throughout industry for more than 50 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:

- In front of industrial ovens
- 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 and 3 day old polymer screed
- Fully serviceable within only 24 hours
- Non-solvent and non-tainting
- Specially treated iron aggregates for maximum abrasion resistance
- Long lived and low maintenance
- No primer required, enabling rapid installation in a single application

PERFORMANCE DATA

RAPID INSTALLATION

Specifications are available that enable Ucrete IF to be installed and cured within a 12 hour application window even at low temperatures

AIR QUALITY

Ucrete has been awarded the Indoor Air Comfort Gold Label following extensive VOC emission chamber testing and auditing of quality management and production control procedures.

This demonstrates that Ucrete is an extremely clean product without any volatile compounds that might taint foodstuff or affect the well-being of personnel.

All Ucrete grades give very low emissions and conform to all the emissions requirements for indoor flooring systems in Europe including AgBB in Germany, Afsset in France, where they are rated A+ for VOC emissions (the cleanest rating), and M1 in Finland.

For further information please contact your local Master Builders Solutions representative

NON TAINING

Ucrete IF is non-solvent and non tainting from the end of mixing, as tested by Campden BRI.

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 - 45

Optimum slip resistance can only be maintained with regular cleaning.

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.

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

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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.

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

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 upon request. For detailed information, please contact your local Master Builders Solutions office for guidance.

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 concretes 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 should not be used as they soften under high temperature conditions and will lead to floor failure.

PERMEABILITY

Ucrete IF exhibits zero absorption when tested to CP.BM2/67/2.

SPECIFICATION

The floor finish shall be Ucrete IF from Master Builders Solutions UK Ltd of 19 Broad Ground Road, Redditch, Worcestershire, B98 8YP, installed at a minimum 9/12* mm in accordance with the manufacturer's instructions.

*(select as required)

*A 9mm Ucrete IF floor is fully resistant to high temperature spillage and discharge up to 120°C and is fully steam cleanable. Suitable for freezer temperatures down to -40°C.

*A 12mm Ucrete IF floor is fully resistant to high temperature spillage and discharge up to 130°C and occasional spillage up to 150°C and is fully steam cleanable. Suitable for freezer temperatures down to -40°C.

In extreme thermal shock environments, a well designed substrate of good quality concrete is essential.

COLOURS

Ucrete IF is available in seven standard colours:

Red	Yellow	Green	Orange
Grey	Blue	Green/Brown	

Because of the iron aggregate the colour shades are significantly different from other Ucrete flooring systems.

Ucrete floor 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.

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'

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All joints in the substrate concrete subject to movement should be reflected through the Ucrete floor and sealed with a suitable sealant

COVERAGE

9mm: 28 - 30 kg/m²
12mm: 37-39 kg/m²

CURING

Normally Ucrete IF floors can be put into service within 24 hours even at 8°C. Specifications are available that can be put back into service after 5 hours at 10°C.

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.

Detailed cleaning guidelines are available from your local Master Builders Solutions UK Ltd office.

UCRETE LICENSED APPLICATORS

To achieve the best floor possible with a professional installation, you must use one of our fully trained Ucrete Licensed Applicators.

BIM OBJECTS

All Ucrete products have a dedicated BIM object available to download from the [NBS National BIM](#) Library or [Bimobject](#).

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. Liquid components must be protected from frost.

WARNINGS AND PRECAUTIONS

In its cured state Ucrete is physiologically non-hazardous.

For normal flooring applications Ucrete does not require the use of respiratory protective equipment during installation.

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

HANDLING AND TRANSPORT

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed.

Specific safety information referring the handling and transport of this product can be found in the Material Safety Data Sheet. For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

Disposal of product and its container should be carried out according to the local legislation in force. Responsibility for this lies with the final owner of the product.

CONTACT DETAILS

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Product Data	
Density	2800 kg/m ³
Compressive strength (EN13892-2)	55 - 60 MPa
Tensile strength (BS6319 Part 7)	8 MPa
Flexural strength (EN13892-2)	17 MPa
Compressive modulus (BS 6319:Part 6)	3350 MPa
Adhesive strength to concrete (EN13892-8)	concrete failure
Fire Testing: (EN13501: Part 1)	B _{FL} – S ₁

Note:- Samples cured for 28 days at 20 °C

	
Master Builders Solutions UK Ltd 19 Broad Ground Road Lakeside, Redditch Great Britain B98 8YP	
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01110369	
EN 13813:2002	
Synthetic resin screed material	
Reaction to fire:	B _{FL} – S ₁
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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Ucrete IF - Master Builders Solutions UK Ltd, Version 2

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.

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

"Master Builders Solutions UK Ltd" (the Company) endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.