

Ucrete® IF

Iron aggregate filled heavy duty polyurethane hybrid floor system

MATERIAL DESCRIPTION

Ucrete IF 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 40 years; many of the older floors are still in service. A detailed project reference list is available upon request.

AREAS OF APPLICATION

Ucrete IF is used to protect horizontal surfaces including:

- Waste transfer stations
- Transition strips
- Heavy engineering workshops
- Heavy process areas
- Under mixing heads
- Storage bunkers
- Loading docks
- Heavy equipment maintenance facilities

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.

CHARACTERISTICS AND BENEFITS

- Expert application - installed only by trained specialist contractors.
- Fast application and reduces downtime - quick one step application, no need for scratchcoat in most cases. Can be applied to 7 day old concrete or 2 day old polymer screeds.
- Fast return to service - 8 hour access to foot traffic, 24 hours for vehicles at 23°C.
- High chemical resistance - resists a wide range of organic and inorganic chemicals such as acids, alkalis, amines, salts and solvents.
- High mechanical resistance - wear and high abrasion resistance due to metallic aggregates.
- High impact resistance – will dent rather than star crack like epoxies maintaining floor integrity in harsh environments.
- Resistant to thermal cycling - similar coefficient of thermal expansion to concrete.
- High Tg -Keeps physical characteristics from -25°C up to +130°C.
- Durable/long life- more than 35 years of international use.
- Malleable treated cast iron aggregate - higher abrasion and impact resistance than natural aggregates.
- Colours – Grey, Cream, Yellow, Green, Red, Light Green and Light Grey.

ACCREDITATION

- Ucrete has approval for use as flooring for HACCP accredited facilities.
- Ucrete conforms to The Leadership in Energy & Environmental Design Green Building Rating System LEED® being sustainable and environmentally friendly flooring materials.
- Ucrete floors have obtained the Indoor Air Comfort Gold certificate from Eurofins, with the low levels of emissions to the air and non-tainting properties.
- Ucrete complies with the U.S. Department of Agriculture (USDA) standards for use in federally inspected meat and poultry plants in the USA.

PROPERTIES

Compressive strength (BS 6319:Part 2)	55-60 MPa
Flexural strength (ISO 178)	17 MPa
Tensile strength (ISO R527)	8 MPa
Adhesive strength to concrete (BS6319:Part 4)	Concrete failure
Compressive modulus (BS 6319:Part 6)	3350 MPa
Density (BS 6319:Part 5)	2800 kg/m ³
Fire Testing: EN13501: Part 1	B _{FL} – S1
Slip resistance AS/NZS 4586	P4 (Handbook HB 198)
Water Adsorption (CP.BM 2/67/2)	0 mL
Abrasion Resistance ASTM C 779 Procedure A 60 minutes	0.45mm
Toughness LA Rattler test 2000 cycles	14.8% Weight loss
Impact resistance Steel ball test 3 drops	9 m/kg
Thickness range >9 mm	Service temperatures -40°C to 120°C

Samples cured for 28 days at 20°C. The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.

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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.

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 sound existing concrete (slab on ground) with high moisture contents without the use of special primers provided there is a functioning damp proof membrane below the slab.

This enables rapid construction programs 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.

UV Resistance

The Ucrete resin systems have been formulated to provide the very highest chemical and heat resistance. UV exposure though not affecting the performance of the Ucrete will result in yellowing of the floor which is most apparent in light colours.

APPLICATION

For detailed information about application, please obtain a copy of the Ucrete Application Manual from your local representative or our website.

ESTIMATING DATA

Coverage 9 mm: 28 kg/m².

The coverage rates are theoretical and make no allowance for wastage or site specific conditions.

PACKAGING

Ucrete IF Part 1	2.52kg
Ucrete IF Part 2	2.86 kg
Ucrete IF Part 3	15.6 kg
Ucrete IF Part 5	12.5 kg
Ucrete pigment Part 4	0.50 kg

STORAGE

Store 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.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

DISCLAIMER

Ucrete-IF-ANZ-V14-1120

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this MB Solutions Australia Pty Ltd publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use and for ensuring that the application and use of the product is in accordance with the manufacturer's guidelines and recommendations.

NOTE

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