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 Resinous
 Flooring

Ucrete[®] IF

Iron Filled Heavy Duty Polyurethane Trowel Applied Floor Finish

PACKAGING

Part 1 and 2: 3 liter jugs filled to provide the proper ratio
 Part 3: 65.7 lbs. (29.8 kg) bag
 Part 4: 1.1 lbs. (.5 kg) pigment pack

SHELF LIFE

Part 1: 9 months when properly stored
 Part 2: 1 year when properly stored
 Part 3: 9 months when properly stored
 Part 4: 2 years when properly stored

STORAGE

Store and transport in unopened container in a clean, dry area at stable temperatures approximating 40 to 86 °F (5 to 30 °C). Must be protected from frost.

COLORS

Ucrete color: Red, Gray, Cream, Blue, Green, Charcoal

YIELD

For coverage rates, refer to the Ucrete Contractor Installation Guideline.

SUBSTRATE

Concrete substrates should be visibly dry and have a minimum tensile strength of 200 p.s.i

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

LOCATION

- Interior or exterior applications
- Some color instability in direct UV exposures.

WHERE TO USE

- Meat, Poultry and Seafood Plants
- Dairy Plants
- Beverage and Bottling Facilities
- Pharmaceutical Plants
- Commercial Kitchens and Restaurants
- Chemical Processing Plants
- Freezers and Coolers

DESCRIPTION

Ucrete is a unique Heavy Duty polyurethane resin floor which provides an extremely tough surface for environments subject to extreme impact and abrasion. Its dense and impervious iron armored 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.

FEATURES	BENEFITS
Thermal stability	Resists steam or continuous hot-water
Fast curing	Minimized down time
Solvent free	Tolerates exposure to organic and inorganic acids
Can be applied to 7-10 day old concrete	Accelerates work schedules
Chemical resistant	Tolerates organic and inorganic acids, alkalis and salts
Unaffected by freeze/thaw cycles	Handles wide temperature fluctuations
Wide temperature in-service range	Exceeds that of typical epoxy overlays
Excellent impact abrasion resistance	Handles heavy traffic
For the use in facilities operating HACCP	Can be used in food and beverage facilities

Technical Data Composition

Ucrete IF is a four-component polyurethane concrete system.

TEST DATA

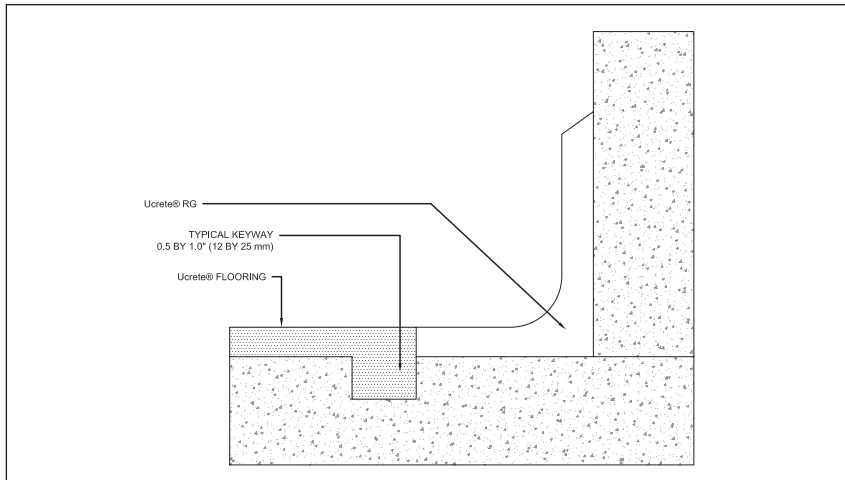
PROPERTY	RESULTS	TEST METHOD
Compressive strength, psi (MPa)	8201 psi (56.5 MPa)	C579, Load rate 1
Tensile strength, psi (MPa)	1273 psi (8.77 MPa)	C307
Density, lb./ft³ (g/cm³)	174.7 lb. /ft. ³ (2.7 g/cm ³)	
Abrasion Resistance, g loss CS-17 Wheel, 1,000 cycles	2660 psi	ASTM 779
Compressive modulus, psi (MPa)	.0005 psi (3350 MPa)	
Flexural strength, psi (MPa)	2465.6 psi (17 MPa)	

Chemical Resistance

Ucrete IF offers exceptional resistance to a wide range of chemical aggressors. For example, Ucrete is resistance to the following commonly encountered 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 flavorings and essences.
- Mineral oils, kerosene, gasoline and brake fluids
- A wide range of organic solvents including Methanol, Xylene Ethers and Chlorinated solvents

NOTE: Full chemical resistance is achieved after curing for 7 days. For chemical resistance to a specific compound, consult the Chemical Resistance Guide. Some staining or discoloration may occur with some chemicals, depending upon the nature of the spillage and the standards of housekeeping employed. Some strong mineral acids and oxidizing agents may cause some corrosion of the iron aggregates. Contact your local Master Builders Solutions representative for more information.



HOW TO APPLY

Ucrete systems are installed by approved contracting firms who have completed the manufacturer's training workshops. Ucrete is a globally branded product line with industry synergies around the world.

The following is only a summary of the installation techniques used by your Ucrete approved contractors. Refer to the Ucrete Contractor Installation Guideline for more information.

PLANNING

The width of the bay should be wide enough to product a strip of material 1'-1.3' across, along the whole width of the bay to allow for efficient troweling. The optimum bay widths are:

For a 3/8" floor	10-13' for single mix
	19-26' for a double mix
	30-40' for a triple mix

SURFACE PREPARATION

1. Floors must be structurally sound and properly cured.
2. Repair concrete as necessary.
3. Use commercial degreaser to clean floors of oil, grease and other bond-inhibiting materials.
4. Remove curing and parting compounds and other surface hardeners and floor coatings in accordance with the manufacturer's instructions.
5. Mechanical surface profiling is the method of surface penetration for both new and

existing floors. Mechanically profile the floor to a minimum CSP 4-5 as described by the International Concrete Repair Institute.

6. Apply at least a 100 square foot test in an inconspicuous area that meets the owner's expectations for appearance, slip resistance, and performance.

PRIMING

A primer is not normally required, however if you are using a primer, ensure a profile of a minimum of 1/8" is achieved in the substrate for good transmission of stress in high impact environments.

On porous substrates and where hygiene, ease of cleaning and appearance are important, the use of a primer is beneficial.

APPLICATION

1. Open jugs of Part 1, Part 2 and Part 4 liquid pigment pack.
2. Mix the 3 components using a mechanical mixer. The materials are supplied in pre-measured containers.
3. Add the powdered Part 3 and continue mixing for another 2-4 minutes (temperature dependent). Do not mix by hand. Scrape sides at least once.
*Material temperatures below 60 °F (15 °C) will make application more difficult.
4. Spread the mix evenly over the substrate and close using a steel trowel (avoid over-troweling as this results in gloss variations and impaired slip resistance).

CURING TIME

The floor can be returned to full service after 24 hours at 46.6 °F (8 °C).

MAINTENANCE

Regular cleaning and maintenance will prolong the life of all polymer flooring systems, enhance their appearance and reduce any tendency to retain dirt. Ucrete IF is readily cleaned with industry standard cleaning chemicals and equipment. Ucrete IF will withstand steam-cleaning, high pressure hot-water wash-downs along with a wide range of decontamination and degreasing materials.

FOR BEST PERFORMANCE

- The owner and architect should discuss joint details with the flooring contractor before the job starts.
- Substrates must be structurally sound, clean, dry, and free of any foreign matter that could inhibit adhesion.
- Do not apply at temperatures below 40 °F (5 °C) or above 86 °F (30 °C) or if the relative humidity is above 85%.
- Do not apply directly to unreinforced sand cement screeds, asphalt or bitumen substrates, glazed tile or nonporous brick and tile, magnesite, copper, aluminum, existing coatings, epoxies, or polyesters. For optimal performance, apply directly to concrete. Consult with your Ucrete representative for advice.
- Ucrete IF variations in thickness will affect the system's thermal and impact resistance. Thicker systems will provide the highest level of thermal shock and impact resistance:
- Master Builders Solutions representatives and flooring specialist are available to assist you in the selection of the proper flooring system. Call 1-800-243-6739 for in-house and field technical assistance.
- Make certain the most current versions of the product data sheets and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personal are for the purpose of making technical recommendations only and not supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.com/en-us, e-mailing your request to mbsbcst@mbcc-group.com or calling 1(800)433-9517. Use only as directed.

IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.

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