

# Ucrete® MF

## Heavy Duty Polyurethane Floor Finish System

### PACKAGING

Part 1 and 2: 3 liter jugs filled to provide the proper ratio  
Part 3: 31.7 lbs. (14.4 kg) bag  
Part 4: 1.1 lbs. (.5 kg) pigment pack

### YIELD

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

### 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.

### SUBSTRATE

- Over new and existing concrete surfaces and toppings; when applying over other substrates, contact BASF Technical Service.

### 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

### LOCATION

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

### COLORS

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

### DESCRIPTION

Ucrete MF is a unique Heavy Duty Polyurethane resin floor with exceptional resistance to aggressive chemicals. It provides a smooth protective floor finish suitable for applications in predominantly dry environments, installed at a thickness from 3/16" to 1/4". It is dense and impervious, providing the ideal floor finish for applications in the food, pharmaceutical and manufacturing industries including clean room, laboratory, packing hall and warehouse applications and wherever a robust, long lived floor is required. Ucrete flooring has been widely used throughout the 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 cleaning Low odor; VOC compliant
• 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 MF is a four-component polyurethane concrete system.

### TEST DATA

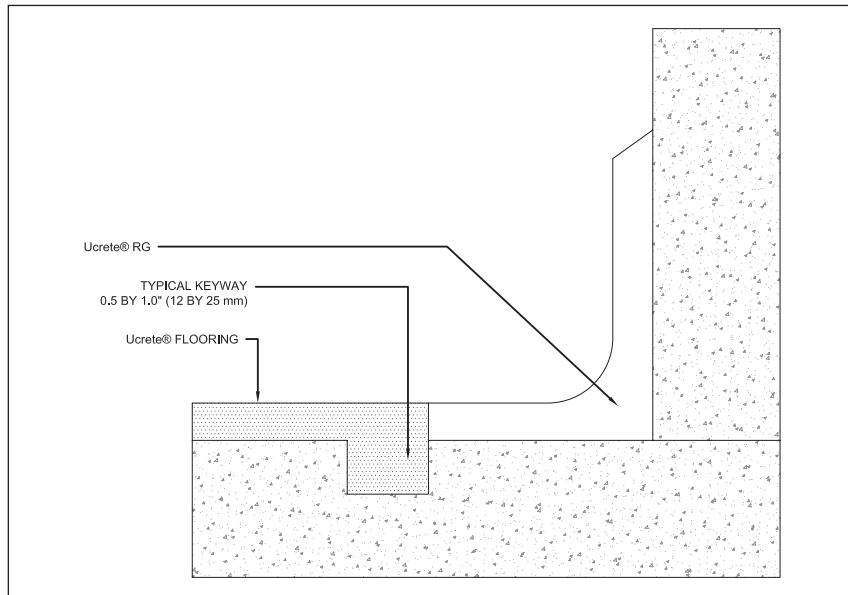
PROPERTY	RESULTS	TEST METHOD
<b>Compressive strength, psi (MPa)</b>	7243 psi (49.9 MPa)	C579, Load rate 1
<b>Tensile strength, psi (MPa)</b>	1305.3 psi (9 MPa)	C307
<b>Density, lb./ft<sup>3</sup> (g/cm<sup>3</sup>)</b>	122.9 lb. /ft. <sup>3</sup> (1.9)	
<b>Impact resistance</b>	IR>4	EN 13813:2002
<b>Compressive modulus, psi (MPa)</b>	.0004 psi (3250 Mpa)	BS 6319: Pt 6
<b>Flexural strength, psi (MPa)</b>	2610.6psi (18-21 MPa)	C580
<b>Water absorption,</b>	0	CP. BM2/67/2

### Chemical Resistance

Ucrete MF 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 and commonly found in the food industry.
- Dilute and concentrated acids: hydrochloric, nitric, phosphoric and sulfuric.
- Dilute and concentrated alkalis, including sodium hydroxide to 50% concentration.
- Animal fats and vegetable oils, sugars flavorings and essences.
- 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. Contact your local BASF representative for more information.



#### NOTES:

Expansion joints in Ucrete MF are best produced by saw cutting the material after application. This will produce a more uniform joint when compared to one made by placing a piece of wood in the concrete and applying the Ucrete to either side.

Care should be taken at doorways. Hot/cold temperatures will affect the cure/flow of the material. This can cause the spike roller marks to not settle out.

Late troweling will result in variations in texture and color shading.

#### CURING TIME

The floor can be returned to full service after 12-24 hours at 70 °F (21 °C).

#### 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.

#### SURFACE PREPARATION

1. Floors must be structurally sound and properly cured. Test floor for vapor drive in accordance with ASTM D 4263 or ASTM F 1869.
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.

#### APPLICATION

The mechanically prepared concrete substrate must be primed prior to the application of Ucrete MF. When using a scratch coat of Ucrete MF as the primer, ensure the scratch coat is allowed to cure for 18 hours (at 72 °F, 22 °C) before applying the Ucrete MF self-leveling coat.

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). Scrape sides at least once. Do not mix by hand.
- \* Temperature is critical to the correct application of this product. Product temperatures below 64 °F(18 °C) will make application more prone to problems. The air and substrate should be above 54 °F(12 °C).
4. Immediately discharge the product and place material on substrate to be coated. Mix subsequent batches immediately.
  5. Spread mix evenly and close with a clean steel trowel. Install to a thickness of 3/16" to 1/4" depending on requirements.
  6. Immediately after troweling, back rolling of a short nap roller will provide a more even finish. The roller should not pass over the surface more than twice.

#### 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 MF is readily cleaned with industry standard cleaning chemicals and equipment. Ucrete 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 54 °F (12 °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 MF's 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.
- BASF 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 BASF personal are for the purpose of making technical recommendations only and not supervising or providing quality control on the jobsite.

#### HEALTH, SAFETY AND ENVIRONMENTAL

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.basf.us](http://www.master-builders-solutions.basf.us), e-mailing your request to [basfbscst@basf.com](mailto:basfbscst@basf.com) or calling 1(800)433-9517. Use only as directed.

**For medical emergencies only,**

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