

9 | 09 67 23
Resinous
Flooring

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

1/4" (6 mm): 21–22 sq ft
3/8" (9 mm): 15–16 sq ft
1/2" (12 mm): 10–11 sq ft

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 Master Builders Solutions 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	VOC compliant; no odor
• Can be applied to 7 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
Compressive strength, psi (MPa)	7243 psi (50 MPa)	C579, Load rate 1
Tensile strength, psi (MPa)	1305 psi (9 MPa)	C307
Density, lb./ft ³ (g/cm ³)	122.9 lb. /ft. ³ (1.9)	
Impact resistance	IR>4	EN 13813:2002
Compressive modulus, psi (MPa)	471372 psi (3250 Mpa)	BS 6319: Pt 6
Flexural strength, psi (MPa)	2611 psi (18–21 MPa)	C580
Water absorption,	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 Master Builders Solutions representative for more information.

HOW TO APPLY

Ucrete systems are installed by trained 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. Repair concrete as necessary.
2. Use commercial degreaser to clean floors of oil, grease and other bond-inhibiting materials.
3. Remove curing and parting compounds and other surface hardeners and floor coatings in accordance with the manufacturer's instructions.
4. Mechanical surface profiling is the method of surface penetration for both new and existing floors. Mechanically profile the floor to a minimum CSP 4–6 as described by the International Concrete Repair Institute.
5. Back roll using a spiked roller in a perpendicular direction to the pin rake, followed by a second spiked roller in the same direction as the pin rake.

APPLICATION

The mechanically prepared concrete substrate must be primed prior to the application of with a primer such as Ucrete Primer FS. 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. Mix for 30–60 seconds.
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 65 °F (18 °C) will make application more prone to problems. The air and substrate should be above 55 °F (12 °C).

4. Immediately discharge the product and place material on substrate to be coated. Mix subsequent batches immediately.
5. Spread mix evenly using a pin rake to the required thickness (3/16" – 1/4").
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.

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).

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.
- 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

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.

LIMITED WARRANTY NOTICE

Master Builders Solutions Construction Systems US, LLC ("Master Builders") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. Master Builders MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. Master Builders WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders' present knowledge and experience. However, Master Builders assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders reserves the right to make any changes according to technological progress or further developments. The Purchaser

of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

FOR PROFESSIONAL USE ONLY. NOT FOR SALE TO OR USE BY THE GENERAL PUBLIC.