

9 | 09 67 23
 Resinous
 Flooring

Ucrete[®] DP Systems

Heavy Duty Polyurethane Basecoat for Ucrete DP Systems

PACKAGING

Part 1 and 2: 3 liter jugs filled to provide the proper ratio
 Part 1 and 2 also in Totes 2153 lbs (976,58 kg)
 Part 3 BC4: 28.7 lbs. (13 kg) bag or
 Part 3 BC6: 38.1 lbs. (17.3 kg) bag or
 Part 3 BC9: 54.6 lbs (24.8 kg) bag
 Part 4: 1.1 lbs. (.5kg) pigment sachet
 HP/Q Quartz Aggregate (equivalent to Filler F20)

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 colors: Red, Gray, Cream, Blue, Green, Charcoal

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

LOCATION

- Wet conditions requiring a heavily texture slip resistant surface
- Some color instability in direct UV exposure
- Interior or exterior applications

YIELD

For coverage rates, refer to the Ucrete Contractor Installation Guideline

DESCRIPTION

Ucrete DP System is a flow applied mortar for use in Ucrete DP and Ucrete HPQ flooring systems. There are three Ucrete basecoat products:

- Basecoat BC4 for 3/16" Ucrete DP and HPQ floors
- Basecoat BC6 for 1/4" Ucrete DP and HPQ floors
- Basecoat BC9 for 3/8" Ucrete DP and HPQ floors

* Note: These are nominal system thicknesses based on the application methods and recommended broadcast quantities as outlined in the Contractor Installation Manual.

Ucrete Basecoat is BC4 and BC6 may also be used as a scratch coat primer under all Ucrete flooring systems.

Ucrete Basecoat is designed to be broadcasted by aggregate as part of the Ucrete DP and Ucrete HPQ flooring systems. It is not a finished floor in it's own right.

FEATURES	RESULTS
• Thermal stability	Resists steam or continuous hot-water
• Fast curing, in temps as low as 50 °F / 10 °C	Minimized down time
• Solvent free	No odor
• 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 and resistance	Handles heavy traffic
• For the use in facilities operating HACCP	Can be used in food and beverage facilities

TECHNICAL DATA COMPOSITION

Ucrete DP Systems is a four-component polyurethane concrete system.

TEST DATA

PROPERTY	RESULTS	TEST METHOD
Compressive strength, psi (MPa)	7091 psi (48.9 MPa)	C579, Load rate 2/1
Tensile strength, psi (MPa)	1103 psi (7.6 MPa)	C307
Density, lb./ft³ (g/cm³)	124.9 lb. /ft ³ (2 g/cm ³)	
Compressive modulus, psi (MPa)	4.71 x 10 ⁵ psi (3250 MPa)	BS 6319: Pt 6
Flexural strength, psi (MPa)	2663 psi (18.3 MPa)	C580
Water absorption	0	CP. BM2/67/2
Coefficient of thermal expansion	4x 10 ⁻⁵ °C ⁻¹	ASTM C531: Part 4.05

Chemical Resistance

Ucrete DP Systems offers exceptional resistance to a wide range of chemical aggressors. For example, Ucrete is resistant to the following commonly encountered chemicals

- Acetic Acid, 50%: Spirit vinegar is widely used in the food industry, indicative of resistant to vinegar, sauces, etc
- Concentrated Lactic Acid @ 140 °F (60 °C): Indicative of resistance to milk and dairy products.)
- Oleic Acids, 100% @ 140 °F (60 °C): Representative of the organic acids formed by oxidation of vegetables and animal fats widely encountered in the food industry.
- Concentrated Citric Acid: As found in citrus fruits and representative of the wider range of fruit acids which can rapidly degrade other resin floors
- Methanol, 100%: Representative of alcohols and the wider range of solvents used in the pharmaceutical industry
- Resistant to a wide range of mineral oils, salts and inorganic acid

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 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. 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 4–5 as described by the International Concrete Repair Institute.
5. Apply at least a 100 square foot test in an inconspicuous area that meets the owner's expectations for appearance, slip resistance, and performance.

PLANNING

The width of the bay should be wide enough to produce a strip of material that is minimum of 1.3' across the whole width of the bay for efficient use of the pin rake. The maximum bay widths are therefore:

For Basecoat B4, 25' for single mix, 50' for a double mix

For Basecoat B6, 19' for single mix, 36' for a double mix.

For Basecoat B9, 13' for single mix, 26' for a double mix.

PRIMING

The use of a primer is not normally necessary but has been shown to be beneficial in cold conditions, on porous concrete or on substrates that may have penetrating treatments.

On rough substrates, and on substrates with large bleed run pores, it is recommended that a scratch coat primer (using Primer FS or Basecoat B4) is used to produce a smooth and sealed substrate for the application of the Basecoat to ensure the best aesthetic results.

The primer should be cured and dry to the touch before application of the body coat. If the time between coats exceeds the 48 hours, or if condensation or water impacts the surface, fully abrade the surface prior to overlaying.

APPLICATION

*Note: temperature is critical in the correct application of the Ucrete DP Basecoat systems. The air and substrate temperature during application should be above 54 °F (12 °C) for Basecoat B4, and 46 °F (8 °C) for Basecoat B6 and B9. When discharged from the mixer, the Basecoat should be at least 65 °F (18 °C).

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. If using the Ucrete Accelerator, reference curing table for recommended dosage (per kit). Varies by room temperature. Ucrete Accelerator should be added to mixture of Part 1, Part 2 and Part 4. Proceed normally.
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
4. Immediately discharge the product and place material on substrate to be coated. Mix subsequent batches immediately.
5. Spread the mix evenly over the substrate using a pin rake, with pins set to the appropriate depth. Use a steel trowel for edgework.
6. Use a loop or texture roller to lightly roll the surface to assist in leveling the basecoat.
7. Use a spiked roller to produce a smooth even finish. The whole floor should be spike rolled twice. The first pass to assist with flow, and remove pin rake marks. The

second pass, the roller should be held lightly on the surface to bring the resin to the surface.

8. The working life is approximately 10 minutes. Multiple units may be mixed, but do not mix more than can be applied in 10 minutes.

Note: If the Basecoat does not flow sufficiently and pin rake marks remain on the surface, even after spike rolling, refer to the Ucrete Contractor Installation Guideline for more information

Failure to address the problem will result in poor aesthetics, variable surface texture and sub standard finish.

BROADCAST

The basecoat must be flat and smooth prior to broadcasting. Imperfections in the surface of the Basecoat will be seen in the finished floor. The time at which the Basecoat is scattered is critical:

- Too early, and the surface will become uneven
- Too late, and the aggregate will not penetrate
- It is essential that the broadcast is applied early enough to absorb into the surface.

At 68 °F (20 °C), the broadcast should be started after 10–15 minutes, so typically after a further two to three mixes of Basecoat have been applied. This will be reduced at higher temperatures, one to two mixes, and extended at lower temperatures, three to four mixes.

The aggregate is broadcast onto the curing Basecoat. If hand scattering is undertaken, care must be taken to ensure even scatter. Apply to the point of rejection or 1.5 lbs./ft² (7.3 kg/m²). Make sure the aggregate falls vertically onto the surface of the Basecoat, never throw the aggregate at the floor.

CURING TIME

Allow to cure overnight (typically 16 hours). If using Ucrete Accelerator, reference table to understand accelerator requirements at various room temperatures and corresponding cure times. Material should be conditioned at 70 °F (21 °C) for optimal cure results and workability.

TEMPERATURE 1 OZ		2 OZ
70 °F	2hrs	Not Recommended
60 °F	4hrs	3hrs
50 °F	5hrs	4hrs
40 °F	Not Recommended	3hrs

Remove excess aggregate by brush and vacuum. Lightly abrade floor using a rotary sanding machine to remove partially adhered aggregate, to produce a uniform surface and reduce the coverage consumption rates for the topcoat. After sanding, vacuum the floor.

Apply the required clear or pigmented finishing coat to lock in the aggregate and obtain the desired profile.

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.
- For porous substrates, Ucrete Primer FS should be used to limit pinholes or other surface defects.
- 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 DP system'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 specialists 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 SDS 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 personnel 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.

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.