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 Resinous
 Flooring

UCRETE[®] HP / F Systems

Heavy Duty Polyurethane Basecoat for Ucrete DP Systems

PACKAGING

Part 1 and 2: 3 liter jugs filled to provide the proper ratio

Part 3 BC4: 28.7 lbs. (13 kg) bag
 or

Part 3 BC6: 38.1 lbs. (17.3 kg) bag

Part 4: 1.1 lbs. (.5kg) pigment sachet

COLORS AND FLAKE

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

Ucrete HP / F: Buckskin, Seamist, Cobalt Blue, Aztec Marble, Limestone, Granite, Sandstone, Nordic Greent

SUBSTRATE

• Over new and existing concrete surfaces and toppings; when applying over other substrates, contact Master Builders Solutions Technical Service.

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.

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.

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

- Some color instability in direct UV exposures.
- 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 HP with flake flooring systems. Ucrete HP / F uses a decorated colored flake aggregate, yielding a slightly textured surface. Ucrete floors are extremely tough and have many physical properties that exceeds those of typical concrete.

There are two Ucrete basecoat products:

Basecoat BC4 for 1/8" (4mm) Ucrete DP and HPF floors

Basecoat BC6 for 3/16" (5mm) Ucrete DP and HPF floors

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 flake as part of the Ucrete DP flooring systems.

It is not a finished floor in its own right.

FEATURES	RESULTS
Thermal stability	Resists continuous hot-water cleaning
Fast curing	Minimized down time
Solvent free	Low odor; VOC compliant
Can be applied to 7-10 day old concrete	Accelerates work schedules
Chemical resistant	Tolerates organic and inorganic acids, alkalis and salts *Chemical resistance can be customized by topcoat
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 HP/F Systems is a four-component polyurethane concrete system.

TEST DATA

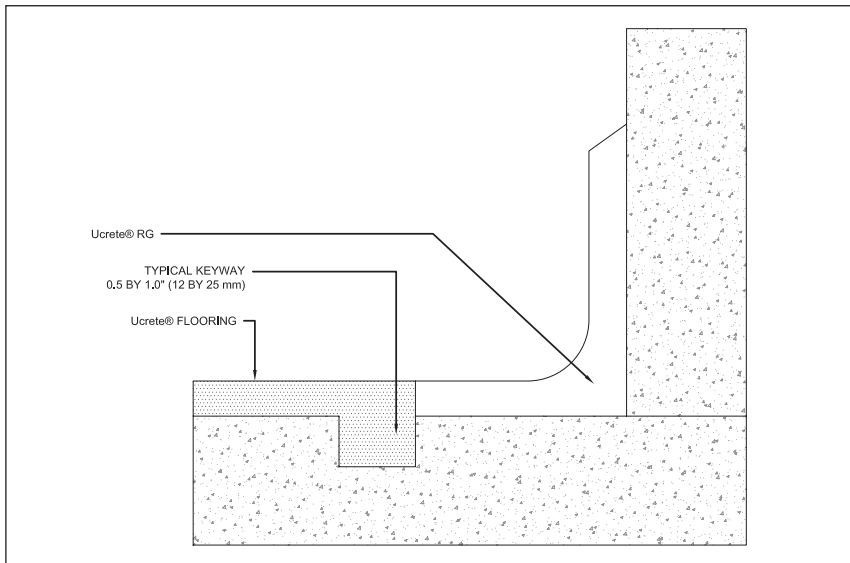
PROPERTY	RESULTS	TEST METHODS
Compressive strength, psi (MPa)	7091 psi (48.9MPa)	C579, Load rate 2 / 1
Tensile strength, psi (MPa)	1103 psi (7.6 MPa)	C307
Density, lb./ft ³ (g/cm ³)	124.9 lb. /ft. ³ (2 g/cm ³)	
Compressive modulus, psi (MPa)	4.71 x 10 ⁵ psi (3250 MPa)	BS 6319: Pt 6
Flexural strength, 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 HP/F Systems offers exceptional resistance to a wide range of chemical aggressors (but varies with the topcoat selected). 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. 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.

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

PRIMING

The use of a primer is not normally necessary but has been shown to be beneficial in cold conditions or on porous concrete as it reduces resin absorption into the substrate, as well as, aids in application.

On rough substrates, and on substrates with large bleed run pores, it is recommended that a scratch coat primer (using Primer FF 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. 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.
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 loop, or texture roller to assist in leveling material and closing pin marks.
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, try the following:
 - Prime or scratch coat the substrate
 - Raise or lower the material temperature
 - Increase the mix time
 - Increase thickness
 - Raise or lower the substrate or site temperatureFailure to address the problem will result in poor aesthetics, variable surface texture and sub standard finish.

BROADCAST:

Apply receiving coat of resin at approximately 160 ft²/gallon (4m²/L).

Immediately broadcast flake into wet material. Even broadcast is best achieved by throwing handfuls of broadcast media towards ceiling and letting it "rain down" on surface. Broadcast until no wet spots are apparent on floor.

Allow to cure, then sweep and vacuum excess aggregate to achieve the desired profile.

Apply the required clear finishing coat to lock in the aggregate and obtain the desired profile. The total system thickness should range from 3/16" to 1/4" (4 - 6mm), depending on the job requirements.

CURING TIME

The floor can be returned to full service after 24 hours at 70 °F (21 °C) following the lock-coat application. Do not expose Ucrete HP / F to any chemicals until fully cured (12 hours at 70 °F [21 °C]). In colder climates with temperatures below 50 °F (10 °C), it may take as long as 48 hours to reach full operational strength. Allow 7 days for full chemical cure of lock coat.

MAINTENANCE

Regular cleaning and maintenance will prolong the life of all polymer flooring systems, enhance their appearance, and reduce any tendency to retain dirt.

THE 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 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 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 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@mbsbcst.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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