We create chemistry

Technical Data Guide

09 67 23
Resinous Flooring

Ucrete® UD200 SR

Heavy Duty Polyurethane-Concrete Floor Finish System

PACKAGING
Ucrete UD200 SR is supplied in multi-component polykit as given below:
Part 1: 3-liter jug
Part 2: 3-liter jug
Part 3: 54.7 lbs. (24.8 kg) bag
Part 4: 1.1 lbs (0.5 kg) pigment pack

SHELF LIFE
When properly stored, UD200 SR components have the following shelf life:
Part 1: 9 months
Part 2: 1 year
Part 3: 9 months
Part 4: 2 years

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.

YIELD
¼" (6 mm): 21– 22 sq ft
⅜" (9 mm): 15–16 sq ft
½" (12 mm): 10–11 sq ft

COLORS
Ucrete UD200 SR base color: Red, Gray, Cream, Blue, Green, Charcoal

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

ACCREDITATION
- Ucrete flooring systems are accredited for use in facilities operating HACCP-based food safety systems.
- Ucrete UD200 SR is non-tainting from the end of mixing, as tested by Campden Technology Ltd.

DESCRIPTION
Ucrete UD200 SR is a unique, trowel-applied, four-component, heavy-duty, polyurethane-concrete system with exceptional resistance to aggressive chemicals, high temperatures and heavy impact. Ucrete UD200 SR has a textured surface providing a safe and attractive floor in wet and greasy environments and can be put back into service after 24 hours.

Ucrete UD200 SR floors are dense and impervious providing an ideal floor finish for all wet and dry process applications in the food and beverage, pharmaceutical and chemical industries and wherever a robust slip resistant floor is required. Without backrolling, UD200 SR is slip resistant in both static and dynamic conditions—0.97 Mμ and 0.86 Mμ respectively. Its combination of durability, speed of cure and ease of cleaning with temperature resistance up to 302 °F (150 °C) are a unique offering meeting the high demands of facilities. Ucrete UD200 SR floors are tolerant of substrate moisture and rapid curing facilitating the maintenance of tight construction schedules and reducing down time in refurbishment applications.

Ucrete UD200 SR is installed at a finish thickness of ¼" to ½" (6–12mm) which is determined by the service and cleaning temperatures and the severity of traffic expected on the floor. Ucrete Industrial Flooring has been widely used throughout the industry for more than 50 years with many of the older floors still in service. A project reference list is available upon request.

RECOMMENDED USES
Ucrete UD200 SR is recommended for conditions requiring maximum chemical resistance, slip resistance and cleanability, especially in extreme temperature environments. For the use of facilities operating HACCP. Specific applications include:

– Meat, poultry and seafood plants
– Dairy plants
– Beverage and bottling facilities
– Pharmaceutical plants,
– Commercial kitchens and restaurants,
– Chemical processing plants,
- And freezers and coolers.

The Ucrete UD200 SR can be used in interior and exterior applications. Direct UV exposure may cause some color instability.

FEATURES AND BENEFITS	DESCRIPTION
EXPERT APPLICATION:	Installed only by trained and approved specialist contractors.
FAST APPLICATION / RAPID ACCESS:	Can be applied to 7–10-day old concrete to accelerate work schedules.
SHORT CURING TIME:	The floor can be returned to full service in 12–24 hours at 70 °F / 21 °C.
DURABLE:	High thermal stability that resists steam or continuous hot-water cleaning, chemical resistance tolerating organic and inorganic acids, alkalis and salts and excellent impact abrasion resistance to handle heavy traffic. Unaffected by freeze and thaw cycles—handling wide temperature fluctuations.
SOLVENT FREE:	Low odor and VOC compliant.

Technical Data Composition
Ucrete UD200 SR is a four-component polyurethane concrete system.

Performance Data
TEST DATA

PROPERTY	RESULTS	TEST METHOD
Compressive strength, psi (MPa)	7,098 psi (48.95 MPa)	ASTM C579, Load rate 1
Tensile strength, psi (MPa)	833 psi (5.74 MPa)	ASTM C307
Density, lb./ft³ (g/cm³)	130.47 lb. /ft³ (2.1 g/cm³)	
Impact resistance	160 inch-pound	EN 13813:2002
Compressive modulus, psi (MPa)	7,057 psi (48.66 MPa)	BS 6319: Pt 6
Flexural strength, psi (MPa)	1,613 psi (11.12 MPa)	ASTM C580

SLIP RESISTANCE

The UD200 SR provides enhanced slip resistance due to larger aggregate gradation.

TEST	RESULTS	TRACTION LEVEL	TEST METHOD
Wet Static Coefficient of Friction	0.97 Mμ SCOF	Mμ > 0.60 – High Traction	ANSI/NFSI B101.1-2009
Wet Dynamic Coefficient of Friction	0.86 Mμ DCOF	Mμ > 0.45 – High Traction	ANSI/NFSI B101.3-2012

The recommended action to take at high traction levels is to monitor regularly and keep clean. Back-rolling is NOT recommended for the Ucrete UD200 SR system for optimal slip resistance. Results as stated do not include back-rolling.

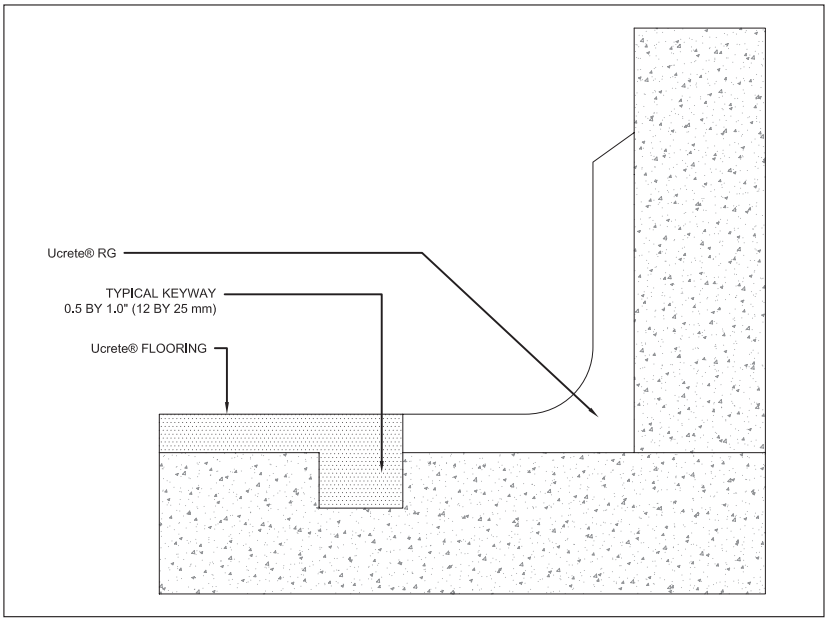
Chemical Resistance
Ucrete UD200 SR offers exceptional resistance to a wide range of chemical aggressors. For example, Ucrete is resistant to the following commonly encountered chemicals:

CHEMICAL	% / °F	DESCRIPTION
• Acetic Acid • Concentrated Lactic Acid	50% 140 °F (60 °C)	Spirit vinegar is widely used in the food industry, indicative of resistance to vinegar, sauces, etc. Indicative of resistance to milk and dairy products.
• Oleic Acids encountered in the food industry.	100% @ 140 °F (60 °C)	Representative of the organic acids formed by oxidation of vegetables and animal fats widely
• Concentrated Citric Acid degrade other resin floors.		As found in citrus fruits and representative of the wider range of fruit acids which can rapidly
• 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 BASF representative for more information.

UV RESISTANCE
The Ucrete resin systems have been formulated to provide the very highest chemical and heat resistance. UV exposure, though not affecting the performance of the Ucrete, will result in yellowing of the floor and is most apparent in light colors.

THERMAL RESISTANCE
The UD200 SR thickness variations will affect the system's thermal and impact resistance. The UD200 SR will resist temperatures as low as -40 °F (-40 °C) up to 302 °F (150 °C) depending on system thickness. Thicker systems will provide the highest level of thermal shock and impact resistance.



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

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 mix evenly and close with a clean steel trowel. Install to a thickness of ¼" to ½" (6–12mm) depending on requirements.
6. OPTIONAL: Immediately after troweling, back rolling of a short nap roller will provide a more even finish. However, this will reduce the slip resistance of the finished floor. The roller should not pass over the surface more than once.

NOTES:

Do not use a short nap roller to flatten out the surface of a poorly troweled floor.

Do not back-roll into partially cured material, as it will be visible in the floor finish. Avoid excessive build-up of resin on the roller by rolling out immediately in front of the wet edge, or on a piece of cardboard.

The use of a short nap roller will reduce the slip resistance and care should be taken that the correct degree of slip resistance versus ease of cleaning is produced in line with the end user's requirements. Excessive use of the roller can lead to the inclusion of air into the surface of the floor resulting in pinholes.

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. UD200 SR is readily cleaned with industry standard cleaning chemicals and equipment. UD200 SR 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.
- BASF 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 BASF 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 the Health, Safety and Environmental, 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, e-mailing your request to basfbscst@basf.com or calling 1(800)433-9517. Use only as directed. For medical emergencies only, call ChemTrec® 1(800)424-9300.

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