Floorguard Products

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URETHANE CEMENT

1/4" TROWELABLE URETHANE CEMENT

PRODUCT OVERVIEW

Trowelable Urethane Cement is a 3-component self-leveling, high performance urethane cement system designed for extreme durability and chemical resistance resulting in 1/4" nominal thickness. Formulated with superior bonding properties, delivering exceptional heat and thermal shock resistance, making it ideal for industrial kitchens, food and beverage processing plants, dairy farms, wine cellars, and other demanding environments. This low-odor system can be applied in occupied spaces, providing a seamless, easy-to-clean surface that withstands heavy use, spills, and harsh cleaning protocols. It is perfect for areas requiring a tough, long-lasting, and hygienic flooring solution. Can be field pigmented using E-Poly universal colorants.

KEY FEATURES

- Thermal Shock Resistance
- High Heat Resistance
- Wide Range Operational Temps
- High Impact & Slip Resistance
- Enhanced Flow & Self-Leveling
- Superior Abrasion Resistance
- High Chemical Resistance
- New Pour Compatible (7-10 Day)
- High Strength & High-Build
- Broadcast Compatible

COLOR OPTIONS

UNTINTED

APPLICATION CONSIDERATIONS

- Higher ambient, product, and substrate temps will decrease working time and dry time
- Mix full kits- Do not mix partial or break down kits
- Color may vary batch to batch, therefore use same batch for entire job or box pigmented components prior

PHYSICAL CHARACTERISTICS

SOLIDS CONTENT	96%
VOLUMETRIC MIX RATIO	1A:1B:1C
POT LIFE 1.5 GAL MASS	15-20 Minutes @ 75°F
WORKING TIME	15 Minutes @ 75°F
TACK FREE	4-6 Hours @ 75°F
RECOAT WINDOW	12-24 Hours @ 75°F
LIGHT FOOT TRAFFIC	24 Hours @ 75°F
FULL CURE	3-5 Days
APPLICATION TEMPERATURE	45°F - 90°F | RH <85%
COVERAGE RATE	25 ft²/ kit @ 1/4"
SHELF LIFE UNOPENED	1 Year Liquids 6 Months Aggregate
PACKAGING	2 Gal Kit | 10 Gal Kit | 500 Gal Kit

TECHNICAL PROPERTIES

COMPRESSIVE STRENGTH	ASTM D695	7,000 psi
TENSILE STRENGTH	ASTM D638	1,000 psi
FLEXURAL STRENGTH	ASTM D790	3,600 psi
HARDNESS	ASTM D2240	Shore D 78
ABRASION RESISTANCE CS-17 WHEEL, 1000G LOAD, 500 CYCLES	ASTM D4060	15 mg loss
IMPACT RESISTANCE	ASTM D2794	160 in/lbs
HEAT RESISTANCE		300°F dry | 392°F liquid

CHEMICAL RESISTANCE

Refer to Floorguard Products Chemical Resistance Chart.

REQUIREMENTS

- The substrate should have a compressive strength of at least 3,500 psi
- The substrate should have a Moisture Vapor Emission Rate (MVER) of less than 20 lbs per ASTM F1869 and a Relative Humidity (RH) below 99% per ASTM F2170. When using a Tramex concrete moisture meter, the moisture content should be under 4%
- The substrate should have a pH level in the range of 6 to 9.
- Concrete must be structurally sound and free of all contaminants and bond breakers.
- Concrete should be mechanically prepared and profiled to achieve a Concrete Surface Profile (CSP) between levels 2 and 4, in accordance with ICRI 310.2R
- Mask all perimeter areas to protect surfaces at coating terminations. Saw-cut and key all termination points as required.
- Ensure all depressions, divots, and cracks are properly profiled, cleaned of dust and contaminants, and repaired to prevent defects from showing through the coating.
- Preserve all dynamic joints, while static joints can be filled. When necessary, use dynamic joints as starting and ending points during the application process.
- Ambient and substrate temps should be above 50°F and a minimum of 5°F above Dew Point.
- Product temps should be between 70-80°F.
- Ambient relative humidity should not exceed 80% during coating application.

PRECAUTIONS

- Refer to Safety Data Sheets (SDS) for safety precautions.
- Safety precautions must be followed during storage, handling, and use.
- Personal Protective Equipment (PPE) shall be worn at all times of the application process including but not limited to long sleeve shirts, safety glasses, nitrile gloves and properly fitted NIOSH respirators.
- All sources of ignition must be turned off, and the area should be properly and adequately ventilated during both the application and curing processes.
- The mixing area should be located on or near the project site and securely covered with plastic, cardboard, or a tarp to protect against drips and spills.
- Stage all materials, tools, and cleaning supplies in a shaded area—out of direct sunlight—within the mixing area before beginning the application process.
- Clean the mixing station and application tools after use with a VOC-exempt solvent. Always follow all legal, health, and safety guidelines when handling or storing solvents and materials, especially when working in confined spaces.
- Dispose of empty packaging and other waste in accordance with all applicable federal, state, provincial, and local regulations.

MIXING PROCEDURE

1. Pre condition product to temperature between 70°-80°F for best results
2. Pre-Mix A-Component in its respective container using Jiffy mixer and drill at slow speeds for 30 seconds until pigment is thoroughly homogeneous
3. Pre-Mix B-Component in its respective container using clean Jiffy mixer and drill at slow speeds for 30 seconds or until thoroughly homogeneous.
4. Transfer A-component and B-component at a mix rate of 1A:1B by volume and mix for 1 minute, slowly add part C aggregate and continue to mix for 2-3 minutes being sure to scrape sides of bucket to ensure all components are thoroughly blended.

- Do not mix at high RPMs or air entrapment may occur
- Do not pull mixing paddle in and out of the mix during process or air entrapment may occur
- Do not overmix as working time will be reduced
- Mix full kits- Do not mix partial or break down kits

COVERAGE RATES & WORKING TIMES

- Neat: 25 Ft² / Kit @ 1/4”
- Full Broadcast: 30 Ft² / Kit @ 3/16”

- 20 Minute Working Time @ 55°F
- 15 Minute Working Time @ 70°F
- 10 Minute Working Time @ 88°F

- Extremely porous surfaces may experience outgassing
- Ambient temps & humidity, product and surface temps, airflow and mix time affect overall working times

APPLICATION PROCEDURE

- Material sets faster in mass; Mixed material should not remain in bucket
- Be mindful of environmental variables and affects on estimated working time

1. Pour mixed material across the surface. Use 3/16”- 1/4” gauge rake to spread mixed material across surface achieving desired thickness depending on application.

- Do not flip bucket upside down and allow to sit on surface
- Ensure you maintain a wet edge throughout application process
- Follow recommended coverage rates and wet film thickness

2. Using a spiked roller back roll the surface wall to wall with 50% overlap. Back roll should be done in both north-south and east-west directions to release air entrapment

- Do not overwork material
- Ensure back roll is always either wall to wall or joint to joint for a consistent finish

3. Broadcast 20-40 grit silica to rejection in wet coating

- Wet/shiny areas require more aggregate to be broadcasted
- Do not walk into wet coating after broadcasting
- Broadcasting aggregate too early results in sand sinking into wet coating requiring more aggregate

4. Allow coating to dry : 8-12 Hours @ 55°F
   4-6 Hours @ 75°F
   2-3 Hours @ 88°F
   - Do not force dry
   - Recoat: 12-24 Hours @ 75°F
   - Light Traffic: 24 Hours @ 75°F

MAINTENANCE

Inspect the installed floor by spot-cleaning and repairing any damaged or cracked areas as needed. To extend the life of the flooring system, implementing a daily maintenance program is strongly recommended to help ensure the floor remains safe for its intended use.

TECHNICAL SUPPORT

For questions, please contact a Floorguard Products representative. Additional support materials are available from Floorguard Products. Visit floorguardproducts.com or reach out to us directly for further resources.

DISCLAIMER