

TECHNICAL DATA SHEET



DESCRIPTION

ProKrete is a low odor, 3-component, urethane concrete. It provides variable thickness ranging from roller applied 5 mils sealer up to a 1/2" finished trowelable system.

ProKrete is designed to withstand aggressive chemical and thermal attack. When properly applied, it provides superior functionality and longevity. Especially well suited to be used in all food and beverage environments.

BRIEF HISTORY

ProKrete cementitious urethane products have been developed from nearly three decades of hands on experience with both installer and end-user. This product offers longer working time and superior flow & leveling when compared to other urethane concrete. Cementitious urethane has been time-tested to outperform the traditional mortar system. It combines the strength of concrete, urethane, and urea for an extremely durable, versatile, reliable, and self-priming functional flooring system. Cementitious urethane provides similar coefficient of expansion and contraction with concrete, yet its strength value is 2-3 times stronger and more resilient.

TYPICAL USES

- ◆ All Food & Beverage Processing
- ◆ Pharmaceutical Plants
- ◆ Commercial Kitchens
- ◆ Mechanical Rooms
- ◆ Engineering M/C Shops
- ◆ Manufacturing
- ◆ Loading Docks
- ◆ Hot/Cold Wash Areas
- ◆ Chemical Processing
- ◆ Chilling/Refrigeration Areas

COLORS

See "Color Guide"

FEATURES & BENEFITS

- ◆ Superior Flow & Leveling
- ◆ Excellent Thermal Shock Resistance
- ◆ Service Temperature up to 220°F, or 250°F for Intermittent Spills
- ◆ **ProKrete Catalyst** Available for *Fast-Track* Projects & Quicker Return to Service
- ◆ Low Odor/Zero VOC
- ◆ Reduced Outgassing
- ◆ Meets USDA, FDA, & CFIA Standards
- ◆ Superior Adhesion Quality
- ◆ Excellent Chemical, Stain, & Impact Resistance
- ◆ Can Be Applied at Lower Temperature, Down to 36°F
- ◆ Longer Working Time
- ◆ Can Be Applied to 5 Day Old Concrete
- ◆ Moisture Tolerant System up to 25 lbs or Internal RH of 99%.
- ◆ **Microbe•BLOK** Antimicrobial
- ◆ Self-Priming
- ◆ Non-Food Tainting
- ◆ LEED- Renewable Resources
- ◆ **ProColor Universal Colorants**
- ◆ ADA Compliant

PACKAGING

Pre-measured kits: 1 unit of resin, 1 unit of hardener, and a blended aggregate bag

STORAGE

Materials should be stored indoors between 65°F (18°C) and 90°F (32°C).

SHELF LIFE

- ◆ Unopened containers - 1 year from date of manufacture.
- ◆ Cement based aggregates should be stored in a dry environment for maximum shelf life.

LIMITATIONS

This product is best suited for application in temperatures between 50°F and 90°F, but can be applied as low as 36°F. **ProKrete SL** and **ProKrete TF** are not UV stable. Grey colors are most susceptible to ambering.

PRODUCTS GUIDE

There is a range of **ProKrete** products that can be applied at various thickness levels to a properly prepared substrate. **ProKrete** is a modular product line utilizing the same resin and hardener.

1. **HD System** is a "heavy duty" self-priming monolithic single step application. It's trowel-applied at 1/4"-1/2" thickness. It is used as a single application.

2. **RT System** is a "heavy duty" self-priming rake and trowel system. It is trowel-finished at 3/16"-1/4" in thickness. It can be used as a single application, or broadcasted (**RTB**) for texture or decorative finish.

3. **SL System** is a "self-leveling" smooth matrix with a satin finish. It can be applied at 1/16"-1/8" in thickness, or by adding an additional 1 gallon of 30-40 mesh silica sand to the mix for 3/16" thickness. Priming the concrete is recommended when **ProKrete SL** is used as a stand-alone system.

4. **SL Broadcast System** is available in **ProKrete SLB, SLQ, or SLF**. It is a "self-leveling" applied system at 1/16"-3/16" with a broadcast media. The system can be broadcasted with either decorative quartz (SLQ), decorative flakes (SLF), or natural silica quartz aggregate (SLB).

5. **TF** is a "thin film", roller applied coating. It can applied with **HD/RT** liquids (1 bag of TF Aggregate) or **SL** liquids (2 bags of TF Aggregate) as a primer or as top/seal coat for either **ProKrete HD/RT/RTB** or **SLB** systems. **TF** can also be broadcasted with silica quartz aggregate and topcoated to provide a cost-effective "Shop Floor" type system.

PRELIMINARY FLOOR INSPECTIONS

CHECK THE CONCRETE: Concrete must be structurally sound and free of curing membrane, paint or other sealer. If you suspect that the concrete has been previously sealed, call **ProREZ** technical support for further instructions.

MOISTURE GUIDELINES: The **ProKrete** system is naturally resistant to moisture vapor emission within concrete slabs. Both the **HD** and **SL** products are tolerant to 25 lbs./1,000 sq. ft./24 hours per ASTM F-1869 (Calcium Chloride Test Method) or 99% relative humidity per ASTM F-2170 (*In-situ* Relative Humidity Test Method).

CHECK THE TEMPERATURE AND HUMIDITY: Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 95%. DO NOT coat unless floor temperature is more than five degrees over the dew point.

SURFACE PREPARATION

This product requires preparation in order to perform as expected. Substrate must be mechanically profiled (ASTM 4259-83), clean, sound, and dry.

COVERAGE RATES

- ◆ A kit of **ProKrete** will cover in the following manner:
- ◆ **HD** will cover 19 s.f. per kit at 1/4" thickness.
- ◆ **RT** will cover 24 s.f. per kit at 3/16" thickness.
- ◆ **SL** will cover 60 s.f. per kit at 1/8" thickness and 100 s.f. at 1/16" thickness.

JOINT GUIDELINES

Refer to the Joint Guidelines for complete details on our website.

MIXING INSTRUCTIONS

Application Equipment:

- ◆ Personal Protective Equipment (PPE) & clothing per SDS (Safety Data Sheet)
- ◆ Jiffy® Mixer Blade (ES Model)
- ◆ Clean Mixing Container
- ◆ Low Speed /High Torque Power Drill
- ◆ Shed-Resistant Roller Cover- 3/8" Nap
- ◆ Application Squeegee, Cam Rake, or Screed Box

Mix ratio for a kit of **ProKrete** is **1 unit of Resin, 1 unit of Hardener, and 1 bag of Aggregate. 8oz. of ProColor Universal Colorant** is recommended **per kit of ProKrete SL or HD/RT**. When tinting, it should be added and mixed in homogenously to the resin prior to adding the hardener and aggregate. When combining, be sure to add the resin (standard light grey) into the clean mixing container first. Then add the hardener scraping out the container into the resin, mixing for 30 seconds before slowly adding the bag of aggregate. Always pour into the **center** of the mixing container. Mix all three components for **1 minute** with a Jiffler ES style mix blade. Mix only enough material at one time that can be applied without exceeding the pot life.

CLEANING GUIDELINES & MAINTENANCE

Allow floor coating to cure at least one week before cleaning by mechanical means (e.g., sweeper, scrubber, disc machine).

CARE

Proper maintenance will increase the service life and help maintain the appearance of your new **ProREZ** floor coating system. This product is considered to be a low maintenance coating system, however, certain textures and service environments require specific procedures. SEE "CLEANING GUIDELINES" for more information.

CAUTION

Avoid scratching or gouging the surface. All floor coatings will scratch if heavy or sharp objects are dragged across the surface. Do not drop heavy or pointed items on the floor as this may cause chipping or concrete pop-outs in the case of a weak substrate cap. Rubber

tires can permanently stain the floor coating from plasticizer migration. In warehouse & industrial settings, the use of non-marking tires is highly recommended to prevent discoloration. Rubber burns from quick stops and starts can heat the coating to its softening temperature, causing permanent marking.

REPAIRS

Repair gouges or scratches or chip outs as soon as possible to prevent moisture or chemical contamination.

DISPOSAL

Dispose in accordance with federal, state and local regulations.

TECHNICAL SUPPORT

For any application questions, please call **ProREZ** technical support at **877.511.3456**.

SDS

PLEASE SEE SAFETY DATA SHEET (SDS) FOR SAFETY AND PRECAUTIONS. USE PRODUCT AS DIRECTED. **KEEP OUT OF THE REACH OF CHILDREN.**

PHYSICAL CHARACTERISTICS	
Mix Ratio (by volume)	1 unit of resin, 1 unit of hardener, and 1 blended aggregate bag
Viscosity at 70°F	Not Applicable
Pot life at 70°F	20 minutes
Cure Time, Tack-Free at 70°F	SL- 10 hours HD/RT- 8 hours
Working Time at 70°F	SL- 20 minutes HD/RT- 25 minutes
Volatile Organic Compound	(VOC) nil

PHYSICAL PROPERTY	TEST METHOD	HD	SL
Hardness (Shore D)	ASTM D-2240	80	80
Adhesion	ASTM D-4541	>400 psi, substrate fails	>400 psi, substrate fails
Impact Resistance	ASTM D-2794	>160 in./lb.	>160 in./lb.
Water Absorption	ASTM D-570	<0.1%	<0.1%
Flammability	ASTM E-648	Class 1	Class 1
Abrasion Resistance: CS17 Wheel 1000 GM Load 1000 Cycles	ASTM D-4060	50 mg loss	30 mg loss
Coefficient of Friction (James Friction Tester) Wet Dry	ASTM D-2047	0.9 (smooth) 0.9 (smooth)	0.6 (smooth) 0.7 (smooth)
Heat Resistance Limitation Thermal Cycling (5 min. interval) (10 min. interval) Continuous Heat	Hot Oil (400°F) to Ice Water (25°F) Hot Oil (400°F) to Ice Water (25°F) 1 hour 300°F Hot Oil Submersion	40 cycles – no effect 40 cycles – no effect no effect	
Other Tests: Mortar Mix			
Compressive Strength	ASTM C-579	9,000 psi	9,500 psi
Tensile Strength	ASTM C-307	1,000 psi	1,500 psi
Flexural Strength	ASTM C-580	3,500 psi	2,200 psi
Flexural Modulus of Elasticity	ASTM C-580	2.6 × 10 ⁶ psi	2.6 × 10 ⁶ psi
Thermal Coefficient of Linear Expansion	ASTM C-531	1.1 × 10 ⁻⁵ in./in.°F	1.1 × 10 ⁻⁵ in./in.°F

Warranties: Seller warrants that its goods, as described on the face hereof, are free from any defects in material or workmanship. Seller makes no other warranty, express or implied, and all implied warranties of merchantability and fitness for a particular purpose are hereby disclaimed. Seller shall not be liable for prospective profits or special indirect or consequential damages. Seller's sole liability and buyer's exclusive remedy for breach of any warranty as expressly limited, at seller's option, to replacement at the original F.O.B. point or refund of purchase price. Seller shall not be responsible for any claim resulting from failure to utilize product in the manner in which it was intended and in accordance with instruction provided for use of product. Any claim for breach of warranty shall be deemed waived unless buyer shall give seller written notice of such claim within sixty (60) days after delivery and shall allow seller reasonable opportunity to investigate claim and inspect product.