PT-CRETE U™ TG

Product No. 1038

1.01 DESCRIPTION

PT-Crete U™ TG is a three-part urethane polymer, concrete trowel grade product. It is a high-density packed heavy-duty system applied at 3/8" (0.96 cm) thick depending upon design requirements. It is formulated to withstand the aggressive environments offering excellent chemical resistance and superior thermal shock resistance with top-of-the-line functional performances of the PT-Crete U™ family. Be sure to use the right product grade that complies with VOC regulations as per federal, state, statutory bodies, county and city regulations/codes at the place of installation of product.

1.02 ADVANTAGES

- Water-Based, Low Emission
- Contains 20% Plant Based Ingredients
- Meets USDA, FDA, and CFIA Standards
- Self-Priming for Superior Adhesion
- Superior Impact Resistance
- Meets California VOC and SCAQMD Requirements
- Wide Temperature Service Range From -50°F to 200°F (-45°C To 93°C)
- Minimum Application Temperature, 35°F and Above
- High Tolerance to Moisture Vapor Drive, Up to 15 Lbs.
- Green Concrete Applicable – 7 Day Old Concrete
- Resistance to Growth of Bacteria and Fungi

1.03 RECOMMENDED USES

- Chemical Processing
- Restaurants
- Bakeries
- Bottling Areas
- Plant Vehicle Aisles
- Mechanical Rooms
- Food Processing Areas
- Pharmaceutical
- Cage Wash Areas
- Sanitize/Wash Area
- Warehouses

1.04 COLOR

Blue, gray, dark gray, charcoal, green, tile red, and chestnut

1.05 MATERIALS

PT-Crete U™ TG is available in a kit.
Each kit is contains: Side-A (Resin), Side-B (Hardener), and Side-C (Aggregate).
PT-Crete U™ TG is best applied with an epoxy screed box.
It can also be applied with a "Cam" rake and/or manual trowel follow by spike roll.

1.06 CONCRETE MOISTURE CONDITION

PT-Crete U™ TG can withstand moisture vapor pressure up to 15 lbs/1,000 sq. ft. in 24 hours. It is the responsibility of the owner or the owner's representative to examine the substrate for contaminants,

TECHNICAL DATA

Physical Properties

Percentage Solids by weight	100%
Mix Ratio (By Volume)	3 Component Kit
Viscosity at 70°F (20°C)	Not Applicable
Pot Life at 70°F (20°C)	15-20 minutes
Dry Time at 70°F (20°C)	6-8 hours
Working Time at 70°F (20°C)	15 minutes
Spread Rate	18 sqft/kit @ 1/4" (0.63 cm) thickness
	12 sqft/kit @ 3/8" (0.596) thickness
Volatile Organic Compounds (VOC)	<5g/l

MECHANICAL PROPERTIES

	TEST METHOD	RESULT
Hardness	ASTM-D-2240	80D
Compressive Strength	ASTM C-579	5000 psi
Coefficient of Linear Thermal Expansion	ASTM C-531	0.20%
Tensile Strength	ASTM C-307	720 psi
Flexural Strength	ASTM C-580	2500 psi
Adhesion to Concrete	ASTM D-7234	>400 psi, Concrete Failure
Impact Resistance	ASTM D-2794	>160 in/lb
Water Absorption	ASTM C-413	<0.01%
Flame Spread/NFPA 101	ASTM E-648	Class 1
Abrasion Resistance CS 17 wheel, 1000-gram load, 1000 cycles	ASTM D-4060	70mg Loss
Coefficient of Friction (James Friction Tester)	ASTM D-2047	0.60, Meet ADA

moisture, and condition of the concrete slab. Please contact Poly-Tuff Systems, International Technical Services for additional guidelines.

1.07 SURFACE INSPECTION

All surface overlays should be carefully inspected for surface stains, contaminants, and unsound areas, such as soft or dusting surfaces and delaminations. Surface overlays should be carefully checked to locate weak material or delaminated areas. All cracks should be identified and labeled as structural, moving, or non-moving to determine a proper repair method. Control, isolation and expansion joints should be identified for repairs and sealing. Prior to commencing work, the Architect, Engineer, Owner, and/or the owner's agent must be notified of any project condition changes, detrimental or unsatisfactory conditions that could either delay the completion of the project, interfere with execution of the contract, or result in a defective or faulty installation. Work should not proceed until all conditions have been met to the satisfaction of all parties with respect to all agreed upon changes.

1.08 SURFACE PREPARATION

Remove all unsound concrete, tiles, weak grout, laitance, existing coatings, overlayments, mastics, adhesives, curing compounds, unsound joint materials, and all other materials that may impede proper adhesion of the polymer system. Be sure to use mechanical and abrasive methods that do not create micro-cracking of the substrate. Acid or caustic etching may be required on some projects. When abrasive blasting is not required, acid etching and chemical detergent cleaning is often an acceptable method. Concrete substrate must be neutralized after chemical cleaning: Contact PSI for more information. Surfaces exposed to oils, grease or fatty acids need to be carefully washed with a detergent and emulsifier before abrasive blasting. The required Concrete Surface Profile (CSP) achieved with mechanical preparation should be performed in accordance with ICRI Guidelines.

CSP 4-6, concrete surface profile, are needed for PT-Crete U™ TG application.

1.09 CONTAMINATED SUBSTRATE

Detergent scrub and rinse with clean water to remove surface dirt, oil, grease and any other contaminants.

DO NOT MIX UNTIL READY FOR IMMEDIATE USE

PT-Crete U 3/8" TG- Product 1038
SPREAD RATE
18-20 sqft per unit @ 1/4"
TOOLS
Cam Rake, Finish Trowel, Screed Box and Spike Roll

1.10 GENERAL MIXING

Proper planning of mixing and application work flow are essential elements to achieving a seamless and aesthetically-pleasing floor. Plan ahead by laying out installation into sections. Allow the full width of the area to be completed in 15 minutes or less to ensure no placement lines are visible, as cold joint lines will show in the finished floor. Edge details, sloping, and proper pitching are critical for a proper flooring system installation. Crack repairs must also be addressed before the installation of the PT-Crete U™ system.

1.11 BASIC MIXING

1. Pour Side-A (resin) into a 5 gallon (3.78 liters) pail. Make sure the entire content of Side-A (resin) is completely drained.
2. Add Side-B (hardener) to Side-A (resin).
3. Mix Side-A (resin) and Side-B (hardener) together use a high speed drill (800 rpm) with a 5" (12.7 cm) "Jiffler" type-blade for at least 30 seconds.
4. Gradually add Side-C (aggregate) and mix continuously for at least 2 minutes until a homogeneous mix is attained. Move the blade around continuously to ensure the mixture is completely mixed and uniform.

NOTE: Thoroughly and completely mixing the material is critical.

APPLICATION

2.01 APPLICATION BASICS

The application tool must be kept as clean as possible to avoid excessive buildup of old material. Utilize new squeegees or rakes as necessary to avoid disrupting the application work flow. Avoid dripping solvent into the material during application. Check the floor for proper thickness frequently to ensure your tools are still delivering proper coating thickness. Allow the installed coatings to fully cure. A minimum of eight (8) hours is needed for light foot traffic when applied at 75°F (24°C) or above. A minimum cure time of 24 hours may be required for temperature below 75°F (24°C). Material should not be applied at temperatures below 50°F (10°C). Additional cure time is needed for heavy traffic loads such as for forklifts and heavy machinery.

2.02 STORAGE

- Must be stored in a dry environment between 50°F to 90°F (10°C to 32°C). Do not allow Side-A (resin) or Side-B (hardener) to freeze.
- Side-A (resin) and Side-B (hardener) have approximately one (1) year shelf life from the date of manufacture.
- Side-C (aggregate) has approximately six (6) months shelf life from the date of manufacture.
- Must be in original factory sealed container.
- Store drums on wooden pallets to avoid direct contact with the ground.
- Do not open until ready

2.03 LIMITATIONS

- Do not use broken, damaged or wet bags of Side-C (aggregate).
- Do not split, subtract, or add to the kits unless there are inert materials such as pea gravel or sand for extending purposes.
- Bleaching and staining are possible in pigmented systems due to certain chemicals. (This will not affect performance).
- This product is not UV stable. Sunlight and metal halide exposure will cause yellowing. (This will not affect the performance).
- Batch-to-batch color variations may occur. For best results, use the same lot number together for color consistency.
- Do not apply to un-reinforced sand cement screeds, asphalt , bitumen substrates, glazed tile or nonporous brick and tile, magnesite, copper, aluminum, polyesters or elastomeric membranes.
- Old, damaged, bags of Side-C (aggregate) may affect flow, leveling and healing properties. Shelf life of Side-C is 6 months.
- NOTE: Do not remove any materials from any pre-measured kits.

2.04 CLEANUP

Clean up mixing station, tools, and application equipment immediately after completion. Use suitable solvent as specified by PSI's Technical Services Team or if permissible by law, xylene, as a general over-the-counter solvent. Observe all fire hazards, legal, and health and safety precautions when handling or storing solvents, particularly in confined spaces. Make sure the working area is well-ventilated at all times.

2.05 MAINTENANCE

Occasionally inspect the installed floor by spot cleaning and spot repairing any damaged or cracked areas. To prolong the life of the flooring system, a daily cleaning maintenance program is highly recommended to ensure the floor is safe for its intended purpose.

2.06 SAFETY PRECAUTIONS

The installation crew must have proper personal protective equipment at all times while handling these products. All product safety data sheets (SDS) must be read completely and thoroughly prior to starting the project.

Follow and observe all manufacturer, local, state, and federal regulations and safety hazards warnings, procedures, and guidelines. Use only as directed. For professional use only.

KEEP OUT OF THE REACH OF CHILDREN

2.07 DISPOSAL

Dispose all excess materials, packaging, and other waste in accordance with federal, state, and local regulations.

WARNING: This product contains epoxy resin and curatives.

PACKAGING

	PRODUCT NO. 1010 SC	PRODUCT NO. 1018 1/8" (0.32 cm) SL	PRODUCT NO. 1014 1/4" (0.64 cm) SG	PRODUCT NO. 1038 TG	PRODUCT NO. 1011 COVE
SIDE-A (RESIN)	5 lbs.	8 lbs	8lbs.	5 lbs.	3 lbs.
SIDE-B (HARDENER)	5 lbs.	8 lbs.	8 lbs.	5 lbs.	3 lbs.
SIDE-C (AGGREGATE)	5 lbs.	25 lbs.	39 lbs.	40 lbs.	30 lbs.

Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with the PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

LIMITED WARRANTY

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical properties. PSI warrants that its products, when properly installed by a state licensed waterproofing contractor according to PSI guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of 12 months. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PSI shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PSI shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PSI reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PSI makes no claim that these tests or any other tests, accurately represent all environments.

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