

PURECRETE: URETHANE POLYMER CONCRETE

TECHNICAL DATA SHEET

DESCRIPTION

PURECRETE is a three-part, urethane polymer concrete. It is a heavy-duty spread and trowel apply or with the use of a screed box and trowel finished from a 1/4" to 1/2" thickness. This product is part of PureCrete family designed for aggressive environments while offering the ease of application and quick return to service. This product can be used as a stand-alone or system design for looks and performances.

PRIMARY APPLICATIONS

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

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 - 93°C)
- Cold Temperature Application
- High Tolerance to Moisture Vapor Drive
- Green Concrete Applications After 7 Days
- Resistance to Growth of Bacteria and Fungi

TECHNICAL DATA

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| PACKAGING | SC: PART A 5 lbs - PART B 5 LBS - PART C 5 LB SL 1/8: PART A 8 lbs - PART B 8 LBS - PART C 25 LB SL 1/4: PART A 8 lbs - PART B 8 LBS - PART C 39 LB SG: PART A 8 lbs - PART B 8 LBS - PART C 40 LB TG: PART A 5 lbs - PART B 5 LBS - PART C 40 LB SCREED: PART A 5 lbs - PART B 5 LBS - PART C 55 LB COVE: PART A 3 lbs - PART B 3 LBS - PART C 30 LB |
| SPREAD RATE | 14 sq.ft. per unit @ 3/8" Thickness 21 sq.ft. per unit @ 1/8" Thickness |
| PERCENTAGE SOLIDS BY WEIGHT | 100% |
| MIX RATIO, BY VOLUME | 3 Component Kit |
| VISCOSITY AT 70°F (21°C) | Not Applicable |
| POT LIFE AT 70°F (21°C) | 15-20 minutes |
| DRY TIME AT 70°F (21°C) | 6-8 hours |
| WORKING TIME AT 70°F (21°C) | 15 minutes |
| VOC | < 5 g/l |

* The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage.

* Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.

PROPERTIES

@ 73°F (23°C) AND 50% R.H.

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| HARDNESS ASTM-D-2240 | 80D |
| COMPRESSIVE STRENGTH ASTM C-579 | 6500 psi |
| TENSILE STRENGTH ASTM C-307 | 742 psi |
| FLEXURAL STRENGTH ASTM C-580 | 2,261 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 | 70 mg loss |
| COEFFICIENT OF FRICTION (JAMES FRICTION TESTER) ASTM D-2047 | 0.60, Meet ADA |

Note: Although testing is critical, it is not a guarantee against future problems. This is especially true if there is no vapor barrier or the vapor barrier is not functioning properly and/or you suspect you may have concrete contamination from oils, chemical spills or excessive salts.

CONCRETE MOISTURE CONDITION

PureCrete Screed can withstand moisture vapor pressure up to 15 lbs./1,000 sq. ft./24 hours when properly primed with PureCrete Skim Coat Product No. 810. It is the responsibility of the owner or the owner's representative to examine the substrate for contaminants, moisture, and condition of the concrete slab. Please contact PurEpoxy' Technical Services Team for additional guidelines.

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 sounded to locate weak material or delaminations. 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.

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. Aci 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 PurEpoxy 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. PureCrete Screed requires a minimum Concrete Surface Profile (CSP) 3.

MATERIALS

PureCrete Screed No. 839 sold in pre-measured kits. Each kit is comprised of: Part A (resin), Part B (hardener), and Part C ù (aggregate).

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 proper flooring system installation. Crack repairs must also be addressed before installation of the PureCrete system.

DO NOT MIX UNTIL READY FOR IMMEDIATE USE BASIC MIXING

- Pour Part A (resin) into a 5-gallon pail. Make sure the entire content of Part A (resin) is completely drained.
- Add Part B (hardener) to Part A (resin).
- Mix Part A (resin) and Part B (hardener) together use a high speed drill (800 RPM) with a 5" Jiffler type-blade for at least 30 sec.
- Gradually add Part 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.

THOROUGH AND COMPLETE MIXTURE IS CRITICAL

The application tool must be kept as clean as possible to avoid excessive buildup of old material. 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 fork lifts and heavy machinery.

COLOR SELECTIONS

Blue, Grey, Dark Grey, Charcoal, Green, Tile Red, and Chestnut.

STORAGE

- Must be stored in a dry environment between 50°F - 90°F (10°C-32°C). Do not allow Part A (resin) or Part B (hardener) to freeze.
- Part A (resin) and Part B (hardener) have approximately 1-year shelf life from the date of manufacture.
- Part 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

LIMITATIONS

- Do not use broken, damaged or wet bags of Part 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 or bitumen substrates, glazed tile or nonporous brick and tile, magnesite, copper, aluminum, polyesters or elastomeric membranes.
- Old, damaged, bags of Part C (aggregate) may affect flow, leveling and healing properties.
- Caution! Do not remove any materials from any pre-measured kits.

CLEANUP

Clean up mixing station, tools, and application equipment immediately after completion. Use suitable solvent as specified by PurEpoxy 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.

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.

SAFETY PRECAUTIONS

The installation crew must have proper personal protective equipment (PPE) at all times before, during, and after handling all products. All product safety data sheets (SDS) must be read completely and thoroughly prior to starting work. 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.

DISPOSAL

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

IMPORTANT NOTICE

All statements, recommendations and technical information contained in this document are accurate to the best knowledge of PurEpoxy. The data relates only to the specific material designated herein. It may not be valid if used in combination with any other materials. It is the users' responsibility to verify suitability of this information for their own particular use, and to test this product before use. PurEpoxy assumes no legal responsibility for use upon these data. PurEpoxy assumes no legal responsibility for any direct, indirect, consequential, economic, or any other damage except to replace the product or refund the purchase price as set out in the purchase agreement.