



RIO-CRETE TC

TECHNOLOGY DESCRIPTION

RIO-CRETE represents the next generation of polyurethane concrete technology. These Bio-Based flooring systems utilize domestically produced soy bean oil and environmentally friendly packaging.

PRODUCT DESCRIPTION

RIO-CRETE TC is a heavy-duty seamless flooring topcoat typically installed at 16mils. RIO-CRETE TC tough and withstands thermal shock, impact, abrasion and chemical exposure. RIO-CRETE TC offers various surface profiles to meet individual project requirements. RIO-CRETE TC is formulated with a natural additive to be resistant to fungi growth per the industry standard ASTM G-21.

TYPICAL PROPERTIES AT 70°F

Compressive Strength (ASTMC-579)	8,200 psi
Tensile Strength (ASTM C-307)	975 psi
Flexural Strength (ASTM C-580)	2,500 psi
Bond Strength (ASTMD-4541)	100% Concrete Failure
Impact Strength, in/lbs (ASTM D-4226)	>160 in-lb
VOC	5 gm/l
Resistance to Fungi Growth (ASTM G-21)	Passes, Rating of 1

The data shown above reflects typical results based on laboratory testing under controlled conditions. Variations from the data shown may result. Test methods are modified where applicable.

INSTALLATION DATA

Application Temperature, ambient	40 – 85°F
Application Temperature, material	50 – 80°F
Shelf Life	6 months
Pot Life, @77°F	15 minutes
Traffic, @77°F	Light: 12 hours / Full: 24 hours
Fully Cured, @77°F	7 days

IMPORTANT INFORMATION

1. RIO CRETE TC is not color stable unless UV resistant topcoat is used.
2. RIO CRETE TC flooring should not be installed on wet concrete.
3. Floors should be sloped to drain to prevent standing water or chemicals.
4. Spills should be removed as soon as possible to prevent a slipping hazard.
5. Confirm product performance in specific chemical environment prior to use.
6. Prepare substrate according to "Surface Preparation" portion of this document.
7. Follow detailed instructions in the "Installation Steps" portion of this document.
8. Always use protective clothing consistent with OSHA regulations during use.
9. Refer to Safety Data Sheet for detailed safety precautions.
10. For industrial/commercial use. Installation by trained personnel only.

BENEFITS

- Seamless, hygienic finish; no grout joints
- Impact & abrasion resistant surface
- Low odor, fast installation, fast cure
- Thermal shock & chemical resistant
- High temperature resistant to 200°F, varies with different topcoat options
- Anti-slip surface, meets ADA recommendations
- Resistant to moisture vapor transmission (MVT)
- Resistant to fungi growth per ASTM G-21

RECOMMENDED USES

- Food & beverage processing facilities
- Chemical process facilities
- Pharmaceutical facilities
- Wet processing & packaging areas
- Commercial Kitchens

GENERIC DESCRIPTION

Polyurethane Concrete

TYPICAL APPLICATION

1/4" Slurry applied broadcasted and top coated

AVAILABLE COLORS

Red, Dark Red, Gray, Dark Gray, Tan, Green, Blue, Light Blue, Safety Yellow

PACKAGING & COVERAGE

1/2 Gallon Part A, 1/2 Gallon Part B
1 TC Filler Bag
3oz. Liquid Pigment

120 sq ft per unit

SURFACE PREPARATION

Concrete: Apply only to properly prepared clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants.

- New concrete should ideally be cured for a minimum of 14 days to reduce possible shrinkage cracking in the concrete. RIO CRETE SF can be installed after 7 days or when concrete reaches a minimum 3,500 psi compressive strength, which will allow for proper surface preparation, however, early curing movement, shrinkage or cracking that may occur in the concrete will be reflected through the final RIO CRETE flooring.
- Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed.
- Remove any laitance or weak surface layers including broom finish surface.
- Concrete should have a minimum surface tensile strength of at least 300 PSI per ASTM D-4541.
- Surface profile shall be CSP-5 or greater meeting ICRI (International Concrete Repair Institute) standard guideline #03732 for coating concrete, producing a profile equal to 40-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile.
- All concrete surface irregularities, cracks, expansion joints, control joints and terminations should be properly addressed and prepared prior to application of the flooring. Moving joints and cracks will reflect through the final installed RIO CRETE flooring.

INSTALLATION STEPS

IMPORTANT – Follow the detailed application instructions and the safety instructions listed on the product Safety Data Sheets (SDS) copies available upon request. The following installation summary is for reference only and should not be relied upon as all inclusive. RIO CRETE systems should only be installed by trained persons experienced in polyurethane concrete flooring applications.

1. To prevent lifting or delamination, keyways (minimum 5/16" wide x 5/16" deep) must be cut at all terminations, joints, columns, doorways, and drains.
2. Clean sand and dust from prepared concrete where the floor is to be installed.
3. A cove base material can be used to install a cove and/or base as required. The cove/base can be installed before or after the installation of the RIO CRETE SF depending on the specification and or the desired result.
4. It is very important to utilize a proper mixer and paddle to ensure a complete mix and to reduce the risk of introducing excessive air into the mixture. RIO INC recommends the use of a MAN-U-FAB M-61 (1 HP) mixer with a 10 gallon pail and TR4-10 mixing arm. (www.mixall.com)
5. With the mixer running, pour ½ Gallon Part A into the mixing pail.
6. Add 1 Powder Pigment bags to Part A and mix for about 15 seconds.
7. Add ½ Gallon Part B, mix another 15 seconds.
8. Gradually add all contents of a bag of RIO CRETE TC filler into the liquid mixture and blend thoroughly until all particles are wetted out, normally about two minutes.
9. Immediately after mixing (within 3 minutes),POUR THE MIXED MATERIAL onto floor in ribbons. Using a flat squeegee move material uniformly across floor.
10. Backroll material using a 3/8" nap roller to a uniform appearance. Do not over work.
11. ALLOW COATING TO DRY 24 HOURS at 75°F (24°C), 50% relative humidity before opening to light traffic. Allow more time at low temperatures, low humidity or for heavier traffic. Full coating properties take 14 days to develop.



2926 Chester Ave
Cleveland Oh, 44114
612.913.1514