

# Eco-Crete™ TC

## Topcoat



**DESCRIPTION** - Eco-Crete TC, a cementitious grout coat, which may be used for a prime coat or a seal coat.

- **LEED® v4** – Points available under the following credits:
  - **Indoor Environmental Quality, Low Emitting Materials**  
Meets requirements per CDPH-CA Section 01350 Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental chambers Version 1.2.
  - **Materials & Resources, Building Product Disclosure & Optimization-Sourcing of Raw Materials**  
Bio-Based Materials
- **ADVANCE YOUR SUSTAINABILITY GOALS** – Utilizes renewable bean oils and environmentally friendly packaging.
- **EXTREME THERMAL STABILITY** – Steam cleanable. Formulated to withstand temperature variations up to 250°F (121°C)
- **SEAMLESS** – Hygienic finish; no grout joints

### PRIMARY APPLICATIONS

Commercial Kitchens	Food & Beverage Facilities
Restrooms & Locker Rooms	Laboratories
Supermarkets and Food Prep Areas	

### BENEFITS

Impact & abrasion resistant surface	Anti-slip surface, meets ADA recommendations
Low odor, fast installation, fast cure	Resistant to moisture vapor transmission (MVT)
Thermal shock & chemical resistant	Resistant to fungi growth per ASTM G-21
High temperature resistant to 180°F (82.2°C)	

### APPLICATION COVERAGE RATE

Coverage Rate, ft <sup>2</sup> /gal [m <sup>2</sup> /L]	120 [11.1] per unit
Application Thickness, mils [microns]	13 [330]

### SYSTEM PROPERTIES

Property	Test Method	Results
Volatile Organic Compound, VOC, lb/gal [g/L]	ASTM D3960	A+B+C = 0.04 [5]
Compressive Strength, psi [MPa]	ASTM C579	5900 [40.67]
Tensile Strength, psi [MPa]	ASTM C307	1250 [8.61]
Flexural Strength, psi [MPa]	ASTM C580	2900 [19.99]
Bond Strength	ASTM D-4541	100% Concrete Failure
Impact Strength	ASTM D-4226	>160 in-lb
Resistance to Fungi Growth	ASTM G-21	Passes, Rating of 1
Flammability	ASTM D635	Self-extinguishing

Testing performed at 70°F [21.1°C]. 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 (4.4-29.4°C)
Application Temperature, material	50-80°F (10-26.6°C)
Pot Life, @ 77°F (25°C)	15 minutes
Traffic, @77°F (25°C)	Light: 12 hours / Full: 24 hours
Fully Cured, @ 77°F (25°C)	7 days

## GENERAL PRODUCT INFORMATION

<b>STORAGE:</b>	Materials should be stored indoors between 65°F [18°C] and 80°F [26.6°C].
<b>SHELF LIFE:</b>	Six months from date of manufacture.
<b>PACKAGING</b>	<b>Eco-Crete™ TC</b>
<b>OPTIONS / PART NUMBERS:</b>	1 gallon / 9014853 (½ gallon Part A, ½ gallon Part B, 1 bag C + 1 powder pigment) 10 gallons / 9014854 (5 gallons Part A, 5 gallons Part B, 10 bags C + 10 powder pigments) 500 gallons / 9014855 (250 gallons Part A, 250 gallons Part B, 500 bags C + 500 powder pigments)
<b>OPTIONS:</b>	<i>Powder Pigments:</i> Available in Red, Gray, Dark Gray, Tan, Green, Safety Yellow and Black <i>Standard Colorants:</i> Tile Red, Canada Gray and Medium Gray are typically used in Eco-Crete TC. Call Tennant Technical Support for other color options.
<b>LIMITATIONS:</b>	<i>Contamination (Fisheyes):</i> Product may not adhere if oil, silicones, mold release agents or other contaminants are present. <i>Outgassing:</i> Blisters may result if sand is not broadcast into the slurry. <i>Movement:</i> Moving joints and cracks will reflect through the installed system. 7 day old concrete can be coated, but any shrinkage cracks that form may show in the Eco-Crete. <i>UV/Light Stability:</i> This product is not light stable and will yellow/amber over time unless topcoated with optional UV resistant topcoat. <i>Product Stability:</i> Part A and Part B resins must not be allowed to freeze. If you suspect product has frozen, please call Tennant technical support.

## CHEMICAL RESISTANCE PROPERTIES

Eco-Crete TC	1 Day	7 Days	Eco-Crete TC	1 Day	7 Days
<b>Acids, Inorganic</b>			<b>Solvents (Ketones &amp; Esters)</b>		
10% Hydrochloric Acid	G	G	Methyl Ethyl Ketone (MEK)	G	P
30% Hydrochloric Acid (Muriatic)	G	G	Propylene Glycol Methyl Ether Acetate (PMA)	G*	G
10% Nitric Acid	G	G	<b>Miscellaneous Chemicals</b>		
50% Phosphoric Acid	G	G	20% Ammonium Nitrate	G	G
10% Sulfuric Acid	G*	G*	Brake Fluid	E	G
37% Sulfuric Acid (Battery Acid)	G*	G*	Bleach	G*	G*
<b>Acids, Organic</b>			Motor Oil (SAE 30)	E	E
10% Acetic Acid	G	G	Skydrol® 500B	E	E
10% Citric Acid	G*	G*	Skydrol® LD4	E	G*
50% Citric Acid	G	G	20% Sodium Chloride	E	E
Glacial Acetic Acid	G	P	1% Tide® Laundry Soap	E	E
Lactic Acid 88%	G*	G*	10% Trisodium Phosphate	E	E
Oleic Acid	E	G*	Castor Oil	E	E
<b>Alkalies</b>			Vegetable Shortening	E	E
10% Ammonium Hydroxide	E	E	Water	E	E
50% Sodium Hydroxide	E	E	High Fructose Corn Syrup	E	E
<b>Solvents (Alcohols)</b>			Hydrogen Peroxide	G*	G*
30% Ammonium Hydroxide	E	G*	White Wine	G	G
Ethylene Glycol (Antifreeze)	E	E	Red Wine	G*	G*
Isopropyl Alcohol	G*	G*	Vodka	E	E
Methanol	G*	G	Ketchup	G	G*
<b>Solvents (Aliphatic)</b>			Mustard	G*	G*
d-Limonene	E	E	Coffee	G*	G*
Jet Fuel - JP-4	E	E	Coke®	E	G*
Gasoline	E	E	Fish Oil	E	E
Mineral Spirits	E	E	Dish Liquid Hand Soap (Full Strength)	G*	G*
<b>Solvents (Aromatic)</b>			Octave™ FS Sanitizer	G	G
Xylene	E	E	Registered trademarks: Tide® of Procter and Gamble, Skydrol® of Solutia, Inc., Octave™ of Ecolab® and Coke® of Coca-Cola Co.		
<b>Solvents (Chlorinated)</b>			Results are based on 1-day and 7-day spot testing. Coating cured 2 weeks prior to testing.		
Methylene Chloride	P	P			

ASTM D1308 Test Method 3.1.1 spot test, covered. Results are based on 1-day and 7-day. Coating cured 2 weeks prior to testing.

**Legend:**

E - Excellent (No Adverse Effect) - Recommended.

F - Fair (Moderate Adverse Effect) - Not recommended.

G - Good (Limited Adverse Effect) - Use for short-term exposure only. P - Poor (Unsatisfactory) - Little or no resistance to chemical.

\*Only adverse effect was staining.

**NOTE:** Reduced chemical resistance and staining is possible in pigmented versions of the system.

**IMPORTANT: READ AND FOLLOW ALL PRECAUTIONS AND INSTRUCTIONS BEFORE PROCEEDING.**

**PLEASE SEE SAFETY DATA SHEET (SDS) FOR HANDLING PROCEDURES.**

**USE PRODUCT AS DIRECTED.**

**KEEP OUT OF THE REACH OF CHILDREN.**

## PRELIMINARY FLOOR INSPECTIONS

**CHECK THE TEMPERATURE AND HUMIDITY:** Floor temperature should be between 40°F (4.4°C) and 85°F (29.4°C) and material temperature should be between 50°F (10°C) and 80°F (26.6°C) for Eco-Crete SL. Humidity must be less than 80%. **DO NOT** coat unless floor temperature is more than five degrees over the current, local dew point.

### **BARE CONCRETE**

**CHECK THE CONCRETE:** Concrete must be structurally sound and free of curing membrane, paint and/or other sealer with no standing water. If you suspect that the concrete has been previously sealed, call Tennant Company Tech Support for further instructions.

## APPLICATION EQUIPMENT

• Protective clothing	• Spiked shoes
• Mixing pail	• Loop roller
• ¼" Nap roller	• Roller assembly
• Cam / Gauge rake	• Porcupine roller
• Flat squeegee	• Slow speed drill (500 rpm or less)
• Jiffy® Mixer Blade [Tennant Part #. 08643-1 (1 gal) / 08643-5 (5 gal)]	• Trowel (stainless steel), 4"x12" (101.6 x 304.8 mm) Pool Trowel, Notch Trowel and Margin Trowel

**ASSEMBLE EQUIPMENT:** Due to the limited pot life of the material, all application equipment, etc. should be ready for immediate use. (Clean roller with tape to remove any residual lint.)

## PREPARATION

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

*Steel shot blast (minimum shot size of 330) to a minimum surface profile of CSP-5 meeting ICRI (International Concrete Repair Institute) standard guideline #310.2R. Use magnetic broom to remove excess shot, sweep to remove large debris and vacuum to remove fine dust.*

*Scarify:* Sweep to remove large debris and vacuum to remove fine dust.

Key-in all termination points, drains and joints that may move with a 1/4" (6.35 mm) by 1/4" (6.35 mm) cut.

Patch all depressions, divots and stress cracks in concrete with Eco-Crete SL. For areas thicker than ¼", use Eco-Crete HF.

**JOINTS:** Fill all static (non-moving) cracks or control joints with Eco-Crete SL. Cracking of the resurfacer will occur over joints that are overlaid and later move. Because resurfacers are not flexible, joints that might move should be honored (cut) after the installation and filled with Eco-PJF or Eco-EJF. Isolation joints must be honored and filled with a flexible material designed for this purpose.

## APPLICATION – PRIME COAT

### **COVERAGE RATE:**

Coverage rate will depend upon application thickness. A one-bag mix of Eco-Crete TC will nominally cover: 120 ft<sup>2</sup> (11.1 m<sup>2</sup>) per unit as primer over 20/40 broadcast.

Pour out 0.50 gallons (1.89 litres) Eco-Crete TC Part A into a measuring container. Then, **POUR THE MEASURED PART A INTO THE MIXING PAIL.**

**ADD ONE POWDER PIGMENT BAG OR 3 OUNCES OF LIQUID COLORANT TO PART A** and mix for about 15 seconds.

Pour out 0.5 gallons (1.89 litres) Eco-Crete TC Part B into a measuring container that is separate from the one used with the Part A. Then, **ADD THE MEASURED PART B TO THE PIGMENTED PART A** already in the mixing pail.

**MIX FOR 15 SECONDS** or until thoroughly blended using a Jiffy® mixer.

**POUR ONE ECO-CRETE TC PART C** into the mixing pail. Blend thoroughly until all particles are wetted out, normally about two minutes. **NOTE:** *It is critical to use the same mixing sequence to ensure color consistency throughout the entire application.*

**POTLIFE AT 75°F:** *Mix only enough material, which can be squeegeed and rolled in a 15-minute period.*

**POUR THE MIXED MATERIAL** onto floor in ribbons. Using a flat squeegee move material uniformly across floor. Roll and backroll material using a ¼" nap roller to a uniform appearance. Do not over work. Allow primer to dry.

## APPLICATION – SEAL COAT

**NOTE:** *Blended colors of quartz or flake for a more decorative look must be sealed with a clear, light stable topcoat such as Eco-TCP*

**REPEAT STEPS** used for mixing and spreading of the primer coat.

**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.

## TECHNICAL SUPPORT

For any preparation or application questions, please call Tennant technical support at 800-228-4943, option 3 (US & Canada), 800-832-8935 (International).

## DISPOSAL

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

## MAINTENANCE GUIDELINES

**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 life and help maintain the appearance of your new Tennant floor coating. Sweep and scrub your new coating regularly, as dirt and dust are abrasive and can quickly dull the finish, decreasing the life of your coating. Remove spills quickly as certain chemicals may stain and could possibly permanently damage the finish.

**Use soft nylon brushes or white pads on your new floor coating. Any brush more abrasive than a soft nylon or white pad can cause premature loss of gloss.**

**Detergent:** Tennant has a full range of detergents--general purpose to heavy duty--for your cleaning needs. For assistance in determining which detergent is right for your facility or for additional technical information call: 800-228-4943, option 3 (US & Canada), 800-832-8935 (International).

**Caution:** Avoid scratching or gouging the surface. All floor coatings will scratch if heavy objects are dragged across the surface.

Do not drop heavy or pointed items on the floor as this may causing chipping or concrete popouts in the case of a weak cap.

Rubber tires can permanently stain the floor coating from plasticizer migration. Plexiglass® between the tire and the floor coating can prevent discoloration.

Rubber burns from quick stops and starts can heat the coating to its softening temperature, causing permanent marking.

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

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

Tennant offers a limited warranty on all products. Please see the Tennant Coatings Limited Product Warranty Statement on our website at [www.tennantcoatings.com/warranty](http://www.tennantcoatings.com/warranty). Please contact the Tennant Coatings Technical Support team for additional questions at 800-228-4943, option 3 (US & Canada), 800-832-8935 (International).