

Eco-TCU™

Thick Coat Urethane



DESCRIPTION – High solids, two-component, 100% aliphatic urethane, typically used to seal full broadcast or random flake applications, but may also be used as a standalone coating.

- **LEED® CREDIT** – LEED Green Building Certification Program credits may be available:
 - **Indoor Environmental Quality**
 - 4.2 Low-Emitting Materials, Paint & Coatings

ENVIRONMENTALLY & USER FRIENDLY

- Light stable, high-gloss finish provides superior light reflectivity.
- Seals and protects in one step.
- Cleans easily, saving detergent, labor and water.
- Complies with SCAQMD VOC regulations--100 g/L.

PRIMARY APPLICATIONS

Ideal for areas where light stability is important

APPLICATION COVERAGE RATE

Coverage Rate, ft ² /gal [m ² /L])		115-267 [10.7-24.8] (for broadcast systems) 200-533 [18.6-49.5] (for standalone coating)
Application Thickness, wet mils [mm]		6-14 [0.20-0.36] (for broadcast systems) 3-8 [0.08-0.20] (for standalone coating)

MATERIAL PROPERTIES (LIQUID)

Property	Test Method	Results
Percent Solids, by wt	ASTM D1475	A+B = 90.60
Volatile Organic Compound, VOC, lb/gal [g/L]	ASTM D3960	A+B = 0.84 [100]

SYSTEM PROPERTIES

Property	Test Method	Results
Abrasion Resistance Taber Abraser CS-17 Taber Abrasion Wheel, 1,000 gram load, 1,000 revolutions	ASTM D4060	70-90
Coefficient of Friction - COF, James Friction Tester	ASTM D2047	≥0.38*
Tensile Strength, psi [MPa]	ASTM D2370	7,000 [48.26]
Percent Elongation (seal coat)	ASTM D2370	7
König Hardness (1 mil film)	ASTM D4366	154

*There is a slight improvement in the COF of Eco-TCU after multiple scrubbing. If Eco-TCU has a virtually smooth texture, it will need grit to get COF values >0.50.

Results are based on conditions at 77°F (25°C)

GENERAL PRODUCT INFORMATION

STORAGE:	Materials should be stored indoors between 65°F (18°C) and 90°F (32°C).
SHELF LIFE:	One year from date of manufacture.
PACKAGING OPTIONS /	4.0 gallons / 9001270
PART NUMBERS:	
OPTIONS:	<p><i>Colors:</i> Use Colorants at a rate of one unit per 1-gallon (3.78 litres) of Eco-TCU. Standard Colorant—White, Yellow and Light Gray will not impart total hide. Use these colorants at a rate of two units per 1-gallon (3.78 litres) mix. Similar colorants also may not hide as well. Refer to Color Selection Guide or consult Tennant Technical Support.</p> <p><i>Traction:</i> To improve traction in slip hazard areas, use 292 Grit for applications less than 8 mils. See 292 Grit Product Bulletin.</p>
LIMITATIONS:	<i>Contamination (Fisheyes):</i> Product may fisheye if oil, silicones, mold release agents or other contaminants are present.

TENNANT COATINGS

For First Impressions That Last™

CHEMICAL RESISTANCE PROPERTIES

Eco-TCU Clear	1 Day	7 Days	Eco-TCU Clear	1 Day	7 Days
Acids, Inorganic			Solvents (Chlorinated)		
10% Hydrochloric Acid	E	E	Methylene Chloride	P	P
30% Hydrochloric Acid (Muriatic)	E	G	Solvents (Ketones & Esters)		
10% Nitric Acid	E	F	Methyl Ethyl Ketone (MEK)	P	P
50% Phosphoric Acid	E	G	Propylene Glycol Methyl Ether Acetate (PMA)	F	P
37% Sulfuric Acid (Battery Acid)	E	G	Miscellaneous Chemicals		
Acids, Organic			20% Ammonium Nitrate	E	E
10% Acetic Acid	E	F	Brake Fluid	G	F
10% Citric Acid	E	E	Bleach	E	E
Oleic Acid	E	E	Motor Oil (SAE 30)	E	E
Alkalies			Skydrol® 500B	G	P
10% Ammonium Hydroxide	E	E	Skydrol® LD4	G	P
50% Sodium Hydroxide	E	E	20% Sodium Chloride	E	E
Solvents (Alcohols)			1% Tide® Laundry Soap	E	E
Ethylene Glycol (Antifreeze)	E	E	10% Trisodium Phosphate	E	E
Isopropyl Alcohol	F	P			
Methanol	G	F			
Solvents (Aliphatic)					
d-Limonene	E	G			
Jet Fuel - JP-4	E	E			
Gasoline	E	G			
Mineral Spirits	E	E			
Solvents (Aromatic)			Registered trademarks: Tide® of Proctor and Gamble, Skydrol® of Solutia, Inc.		
Xylene	F	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 and materials should be between 65°F (18°C) and 90°F (32°C). **Humidity must be less than 70%** or the result may be a hazy appearance. **DO NOT** coat unless floor temperature is more than five degrees over the current, local dew point.

APPLICATION EQUIPMENT

• Protective clothing	• Spiked shoes
• Jiffy® Mixer Blade [Tennant Part No. 08643-1 (1 gal) or 08643-5 (5 gal)]	• 18-24" 1/16" Notched squeegee (for build coat of epoxy)
• Slow speed drill (500 rpm or less)	• Roller Assembly (18")
• 18-24" Flat squeegee	• Medium (3/8") Nap Roller

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.)

RECOAT

Eco-TCU may be used to coat over an existing epoxy or urethane coating in sound condition. Detergent scrub and rinse with clean water to remove surface dirt, grease, oil and contaminants. Floor must be sanded thoroughly with 80 grit paper/60 grit screen prior to recoating. We recommend thorough sanding with a swing-type buffer so that multiple scratch marks cause an obvious gloss loss on all areas (depressions will remain shiny), and the floor is uniformly dulled. The ability to see individual scratch marks is an indication that sanding is not adequate. Scrub with detergent and rinse with clean water before coating.

BARE CONCRETE APPLICATION

ECO-TCU IS NOT APPLIED DIRECT TO CONCRETE. IT IS TYPICALLY USED TO SEAL FULL BROADCAST FLAKE AND QUARTZ FLOORS. (See directions below.)

APPLICATION – FIRST GROUT COAT OVER FLAKE OR QUARTZ (12-14 mils / 0.30-0.36 mm)

COVERAGE RATE: One gallon (3.78 litres) of Eco-TCU will cover:

134 ft² (12.4 m²) @ 12 mils (0.30 mm) wet/dry film

123 ft² (11.4 m²) @ 13 mils (0.33 mm) wet/dry film

115 ft² (10.7 m²) @ 14 mils (0.36 mm) wet/dry film

NOTE: *DO NOT APPLY ECO-TCU THICKER THAN 15 MILS (0.38 mm) IN ONE COAT or the result may be a hazy appearance caused by the entrapment of small bubbles.*

PREMIX PART A using a Jiffy® mixer blade and slow speed drill.

ADD ECO-TCU PART B TO PART A. *POTLIFE: Mix only enough material which can be applied within the work time (time between the addition of Part B to Part A and the completion of all application actions). Check the following chart for work times at various temperatures. For smaller quantities, use 1.5 parts PART A to 1 part PART B by volume.*

APPROXIMATE WORK TIME (minutes) -

<u>65°F-70°F</u> 30	<u>71°F-84°F</u> 25	<u>85°F-90°F</u> 20
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MIX FOR 3 MINUTES using a Jiffy® mixer blade and slow speed drill. (Failure to do so could result in lower/diminished coating properties.)

IMMEDIATELY POUR ALL OF THE MIXED MATERIAL onto the floor in a single bead.

PUSH THE FLAT SQUEEGEE at an even speed with down pressure.

START THE SECOND AND REMAINING PASSES by pushing material parallel to the first stroke. Hold the bead of material near the center of the bar and push at an even speed with slight down pressure.

IMMEDIATELY AFTER THE ECO-TCU IS APPLIED and there is room to roll, a second person will **BACKROLL THE MATERIAL** with a 3/8" roller to a smooth and uniform appearance. **NOTE:** *Get off the Eco-TCU as soon as possible.*

ALLOW COATING TO CURE 24 hours at 75°F (24°C) before opening to light traffic. Allow more time at low temperatures or for heavier traffic. Full coating properties take 14 days to develop.

APPLICATION – SECOND GROUT COAT (6 mils / 0.15 mm) OR STANDALONE COATING

Apply an additional coat of Eco-TCU to reduce the surface texture.

COVERAGE RATE: One gallon (3.78 litres) of Eco-TCU will cover:

267 ft² (24.8 m²) @ 6 mils (0.15 mm) wet/dry film (grout coat)

200-533 (18.6-49.5 m²) @ 3-8 mils (0.08-0.20 mm) wet/dry film (standalone coating)

RECOAT WINDOW: Apply the second coat within 24 hours at 65-85°F (18.3-23.9°C) / 70% RH.

NOTE: *The seal coat of Eco-TCU has to be set up enough to walk on before coating.*

REPEAT THE STEPS USED FOR MIXING AND SPREADING THE FIRST SEAL COAT OF ECO-TCU.

ALLOW FINAL COAT TO CURE 24 hours at 75°F (24°C) before opening to light traffic. Allow more time at low temperatures 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. Please contact the Tennant Coatings Technical Support team for additional questions at 800-228-4943, option 3 (US & Canada), 800-832-8935 (International).