

Eco-HTS™ 100

Satin Urethane Topcoat



DESCRIPTION – Clear, high solids, three-component, aliphatic, moisture-cure urethane applied over an epoxy primer or used to recoat an existing epoxy or urethane floor.

- **LEED® v4** – Indoor Air Quality credits available.
 - 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.

ENVIRONMENTALLY & USER FRIENDLY

- Last twice as long as standard urethanes; up to four times as long as standard epoxies
- Light stable, satin finish maintains fresh look in traffic aisles
- Resists Skydrol®, jet fuels and other industrial chemicals
- Low VOC (6 g/L). (Complies with SCAQMD VOC regulations.)

PRIMARY APPLICATIONS

Hangar Floor	Assembly / Production
Automotive Manufacturing	Packaging
Mechanical Room	Clean Room / Lab

APPLICATION COVERAGE RATE

Coverage Rate, ft ² /gal [m ² /L]	500 [12.3]
Application Thickness, wet mils [mm]	3.2 [0.08] 1 coat

MATERIAL PROPERTIES (LIQUID)

Property	Test Method	Results
Percent Solids, by wt [by vol]	ASTM D2369	A+B+C = 94.02 [92.57]
Volatile Organic Compound, VOC, lb/gal [g/L]	ASTM D3960	A+B+C = 0.05 [6]

CURED COATING PROPERTIES (DRY FILM)

Property	Test Method	Results
Abrasion Resistance Taber Abraser CS-17 Taber Abrasion Wheel, 1,000 gram load, 1,000 revolutions	ASTM D4060	18 mg/loss Result based on independent lab testing of Eco-HTS™.
Coefficient of Friction – COF, James Friction Tester	ASTM D2047	0.63
Wet Static Coefficient of Friction, BOT 3000	ANSI/NFSI B101.1	0.94
Flammability	ASTM D635	182 mm/min
Resistance to Yellowing As measured using ASTM D2244 after 1000 consecutive hours UV exposure in QUV.	ASTM G154	<10 increase of yellow units (CIE Lab Δb) if pigmented topcoat
Dry Film Thickness, mils [microns]		3.0 [76.2] 1 coat
Tensile Strength, psi [MPa] (resin only)	ASTM D2370	6,250 (43.09)
Percent Elongation (resin only)	ASTM D2370	6
König Hardness 3 mil, [76.2 micron] film) (resin only)	ASTM D4366	171.3
Water Absorption, 24-hour immersion	ASTM C413	0.2% weight increase

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 /	1.09 gallons (4.12 litres) / 9002617
PART NUMBERS:	5.5 gallons (20.79 litres) / 9002621
OPTIONS:	<i>Colors:</i> Use Colorants at a rate of one unit per 1-gallon (3.78 litres) of Eco-HTS 100. Standard Colorants-- White, Yellow Sandy Beige will not impart total hide. Similar colorants also may not hide as well. Refer to Color Selection Guide or consult Tennant Technical Support.
LIMITATIONS:	<i>Contamination (Fisheyes):</i> Product may fisheye if oil, silicones, mold release agents or other contaminants are present. <i>Chemical Resistance / Staining:</i> Reduced chemical resistance and staining is possible in pigmented versions of the system.

TENNANT COATINGS

For First Impressions That Last™

CHEMICAL RESISTANCE PROPERTIES

Eco-HTS 100 Clear		1 Day	7 Days	Eco-HTS 100 Clear		1 Day	7 Days	
Acids, Inorganic				Solvents (Chlorinated)				
10% Hydrochloric Acid	E	E	Methylene Chloride	P	P			
30% Hydrochloric Acid (Muriatic)	E	E	Solvents (Ketones & Esters)					
10% Nitric Acid	E	E	Methyl Ethyl Ketone (MEK)	E	E			
50% Phosphoric Acid	E	G	Propylene Glycol Methyl Ether Acetate (PMA)	E	E			
37% Sulfuric Acid (Battery Acid)	E	E	Miscellaneous Chemicals					
Acids, Organic				20% Ammonium Nitrate	E	E		
10% Acetic Acid	E	E	Brake Fluid	E	E			
10% Citric Acid	E	E	Bleach	E	E			
Oleic Acid	E	E	Motor Oil (SAE 30)	E	E			
Alkalies				Skydrol® 500B	E	E		
10% Ammonium Hydroxide	E	E	Skydrol® LD4	E	E			
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	E	E	Coffee	E	E			
Methanol	E	E	Coke®	E	E			
Solvents (Aliphatic)				Ketchup	E	E		
d-Limonene	E	E	Mustard	G*	G*			
Jet Fuel - JP-4	E	E	Red Wine	E	G*			
Gasoline	E	E	3M™ DuraPrep™	G*	F			
Mineral Spirits	E	E	Purdue Betadine Solution	G*	G*			
Solvents (Aromatic)				Registered trademarks: Tide® of Proctor and Gamble, Skydrol® of Solutia, Inc., Coke® of Coca-Cola Company and 3M™ DuraPrep™.				
Xylene	E	E						

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 80%. **DO NOT** coat unless floor temperature is more than five degrees over the current, local dew point.

CHECK FOR MOISTURE: Concrete must be dry before application of this floor coating material. Concrete moisture testing must occur. In-situ relative humidity testing is recommended. Readings must be below 75% relative internal concrete humidity. Test methods can be purchased at www.astm.org, see F2170, or follow manufacturer's instructions. If moisture issues are present, the use of a moisture mitigation system may be a consideration. Please call Tennant Company Technical Support for further information / instructions.

NOTE: Although moisture 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. Additional testing may be necessary to determine the vapor barrier and any contamination.

APPLICATION EQUIPMENT

<ul style="list-style-type: none"> Protective clothing Jiffy® mixer blade [Tennant Part No. 08643-1 (1 gal) or 08643-5 (5 gal)] Slow speed drill (500 rpm or less) 60 grit sandpaper 80 grit sandpaper 	<ul style="list-style-type: none"> Roller assembly (18") Medium (3/8") nap roller Application tray Disc machine
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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-HTS 100 may be used to coat over an existing epoxy or urethane 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. If sanding a high wear urethane, use 60 grit paper as the filler in high wear urethanes will wear down the paper very quickly. Change the paper every 200 sq. ft. (18.6 m²) so abrasive stays sharp. 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-HTS 100 MUST BE APPLIED OVER A TENNANT 100% SOLIDS EPOXY PRIMER. (See appropriate epoxy product bulletin for application instructions.)

APPLICATION – TOPCOAT – ECO-HTS 100

PREMIX PART A FOR 3 MINUTES USING A JIFFY® MIXER BLADE with slow speed drill. **POTLIFE:** *Mix only enough material which can be used in a two-hour period.* **NOTE:** *Once opened, this material cannot be resealed for later use.*

COLORS: Premix Tennant Colorant before adding to Eco-HTS 100 to ensure uniform color. Add colorant to Eco-HTS 100 Part A and mix using a Jiffy® mixer blade and slow speed drill. Use colorants at a rate of one unit per 1-gallon (3.78 litres) unit of Eco-HTS 100.

POUR PART C INTO PART A while mixing. **CONTINUE TO MIX AND ADD PART B. MIX FOR 3 MINUTES** using a Jiffy® mixer blade and slow speed drill. Pour into application tray.

APPLY ECO-HTS 100 at the rate of 500 ft²/gallon (46.45 m²/3.78 litres) with a 3/8" nap roller. For proper appearance and development of physical properties, it is crucial that material is not applied above or below this rate. Dip the roller in the coating and lightly roll out excess in the application tray. Apply two 8-10 foot (2.4-3.0 meters) long paths on the concrete, making one stroke left to right and one right to left. Rewet the roller and apply two more paths adjacent to the first pair. Rewet roller and apply a third pair adjacent to the second.

SPREAD THE MATERIAL evenly with V-shaped cross passes.

MAKE SURE THE FLOOR HAS JUST ENOUGH COATING TO COVER EVENLY. Excess material could cause the floor to blister, especially in high humidity. Insufficient material will cause the floor to look non-uniform.

LEVEL THE AREA with straight passes that cross the initial material paths. These final strokes will reduce roller marks. If the appearance is not satisfactory, reroll the area.

REMIX THE MATERIAL in the tray occasionally (with the roller) to prevent settling of the Part C (filler).

NOTE: *When multiple applicators are used to apply material, inconsistencies between areas may result. To ensure a more uniform finish, an individual outfitted with spike shoes may finish by pushing or pulling a roller across all applicator areas.*

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 cause 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).