Eco-FLI™

Product: Eco-FLI is a single component, high solids, liquid applied, moisture cured, aromatic urethane polyurea. It can be applied in single or multiple coats.

Features:	
Enviromentally friendly	Non-gassing
Good chemical resistance	Seamless
Low VOC	

TECHNICAL DATA	
Hardness, ASTM D-2240	85 ± 5 Shore A
Tensile Strength, ASTM D-412	2500 ± 300 psi, 17.2 ± 2 MPa
Ultimate Elongation (ASTM D412	500 ± 50%
Tear Resistance, Die C (ASTM D624)	300 pli ± 50 pli. 52.5 ± 8.8 kNm
Total Solids, Weight (ASTM D-2369)	92.5 %
Total Solids, Volume (ASTM D-2697)	90.0%
Viscosity, at 80°F (24°C)	4000 ± 2000 cps
VOC (ASTM D2369-81)	89 g/L (<0.74 lb/gal)

GENERAL PRODUCT INFORMATION			
STORAGE:	Materials should be stored indoors between 65ºF (18ºC) and 90ºF (32ºC).		
SHELF LIFE:	One year from date of manufacture.		
PACKAGING OPTIONS / PART NUMBERS:	**Eco-FLI™ Light Gray** 9013290 (5.0 gallons) 9013291 (50 gallons)	**Eco-FLI™ Medium Gray** 9013705 (5.0 gallons) 9013707 (50 gallons)	**Eco-FLI™ Dark Gray** 9013706 (5.0 gallons) 9013708 (50 gallons)
LIMITATIONS:	**CONCRETE:** 1. This product is applied as part of a system and requires a primer and base coat. 2. Concrete must exhibit 3000 psi minimum strength. Concrete surfaces to be coated must be free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function. 3. New concrete must be cured for 28 days. 4. Uncured materials are sensitive to heat and moisture.		

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

PLEASE SEE MATERIAL SAFETY DATA SHEET (MSDS) FOR HANDLING PROCEDURES.
USE PRODUCT AS DIRECTED.
KEEP OUT OF THE REACH OF CHILDREN.

PRELIMINARY FLOOR INSPECTIONS

CHECK THE TEMPERATURE: Floor temperature and materials need to be above 40°F (4.4° C). **NOTE:** *Higher temperature application will yield shorter work times.*

CHECK THE CONCRETE: Concrete must be structurally sound and sloped for proper drainage. Tennant assumes no liability for substrate defects. If you suspect the concrete has been sealed or coated, call Tennant Company tech support for further instructions.

CHECK FOR MOISTURE: Concrete must be dry before application of this floor coating material. Concrete moisture testing must occur. Calcium chloride testing or in-situ relative humidity testing is recommended. Readings must be below 3 pounds per 1,000 ft^2 (1.5 kg per 92.9m^2) over a 24-hour period on the calcium chloride test or below 75% relative internal concrete humidity. Test methods can be purchased at www.astm.org, see ASTM F1869 or F2170, respectively or follow manufacturer's instructions. If moisture issues are present, the use of Eco-MVS may be a consideration; see appropriate System Guide and/or call Tennant Company Technical Support for further instructions.

APPLICATION EQUIPMENT

• Protective clothing	• 18-24" 1/16" Notched rubber squeegee
• Spiked shoes	• Roller assembly (18")
• Jiffy® mixer blade [Tennant Part #08643-5 (large unit)]	• Medium (3/8") nap roller
• Slow speed drill (500 rpm or less)	• Sand, (16-30 mesh) Aggregate*
• Paint (chip) Brushes	18-24" (457.2-609.6 mm) Flat rubber squeegee

***SAND SUPPLIERS:**
Premier Silica - http://www.premiersilica.com/index;
AGSCO - http://www.agsco.com/index.html
Abrasives, Inc. - http://www.abrasivesinc.com/
Smalley & Company - http://www.smalleyandcompany.com/default.aspx

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.)

SURFACE PREPARATION

Eco-FLI can be used as either a broadcast resin (seed coat) or topcoat. When used as an intermediate coat with full broadcast it must be applied within 24 hours of the application of the elastomeric base coat. When used as a topcoat over a full broadcast, the floor must be swept and vacuumed to remove excess sand before application begins. If a second topcoat of Eco-FLI is applied it must be applied within 24 hours of the application of the first coat.

REPAIRS

See Eco-Flex System Guide for repair instructions.

APPLICATION – INTERMEDIATE COAT – ECO-FLI™

COVERAGE RATE: Depending upon substrate conditions and system being applied, the following coverage rates for the intermediate coat are the "minimum recommended coverage rates". Light-duty: 125 sq. ft. per gallon, Medium-duty: 125 sq. ft. per gallon, Heavy-duty: 80 sq. ft. per gallon.

PREMIX ECO-FLI PART A using a Jiffy® mixer blade and slow speed drill. (This is required for 5-gallon (18.9 litres) units. Roll or use a drum mixer to mix the 50-gallon units.)

ADD ECO-FLI PART B CATALYST AND MIX THOROUGHLY UNTIL A HOMOGENEOUS MIXTURE AND COLOR IS OBTAINED. Use care not to allow the entrapment of air into the mixture.

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

PUSH THE 1/16" (1.60 mm) NOTCHED SQUEEGEE at an even speed with down pressure to spread the material.

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. ***NOTE:*** *The use of spiked shoes will allow freedom of movement on the wet floor.* ***CAUTION:*** *The surface will be slippery.*

BACKROLL THE MATERIAL with a 3/8" (10 mm) nap roller for a smooth uniformed appearance. Backrolling is required to even out squeegee lap marks / the coating mil thickness.

WHEN ECO-FLI BEGINS TO SLIGHTLY GEL, BROADCAST 16/30 MESH SILICA SAND. The amount of sand used will vary. (Normal usage is 20-30 lbs. of sand per 100 sq. ft.)

WHEN THE ECO-FLI IS STIFF ENOUGH TO SUPPORT THE WEIGHT OF THE INSTALLER WITHOUT DAMAGING THE COATING OR WHEN COATING IS DRY (approximately 2-3 hours), remove loose aggregate.

At 70°F (21°C) and 50% relative humidity, allow coating to cure a minimum of 16 hours before proceeding to subsequent coats. To obtain proper adhesion between coats, it is imperative that recoating be done within 24 hours.

APPLICATION – TOPCOAT – ECO-FLI™

COVERAGE RATE: Depending upon substrate conditions and system being applied, the following coverage rates for the intermediate coat are the "minimum recommended coverage rates". Light-duty: 100 sq. ft. per gallon, **Medium-duty: 80-100 sq. ft. per gallon**, Heavy-duty: 80 sq. ft. per gallon. Use highlighted coverage rate.

PREMIX using a Jiffy® mixer blade and slow speed drill. (This is required for 5-gallon (18.9 litres) units. Roll or use a drum mixer to mix the 55-gallon units.)

MIX THOROUGHLY UNTIL A HOMOGENEOUS MIXTURE AND COLOR IS OBTAINED. Use care not to allow the entrapment of air into the mixture.

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

PUSH THE 1/16" (1.60 mm) NOTCHED SQUEEGEE at an even speed with down pressure to spread the material.

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. ***NOTE:*** *The use of spiked shoes will allow freedom of movement on the wet floor.* ***CAUTION:*** *The surface will be slippery.*

BACKROLL THE MATERIAL with a 3/8" (10 mm) nap roller for a smooth uniformed appearance. Backrolling is required to even out squeegee lap marks / the coating mil thickness.

BROADCAST ADDITIONAL AGGREGATE AS NEEDED to cover any bare or insufficient aggregate placement.

IF SECOND COAT IS REQUIRED, REPEAT THE STEPS ABOVE for mixing instructions. Apply at 125 sq. ft. gallon. Ramps and turn radii and drive lanes may need two coats to increase durability and to meet project specifications.

At 70°F (21°C) and 50% relative humidity, allow coating to cure a minimum of 16 hours before proceeding to subsequent coats. To obtain proper adhesion between coats, it is imperative that recoating be done within 24 hours.

ALLOW 24 HOURS BEFORE PERMITTING LIGHT PEDESTRIAN TRAFFIC AND AT LEAST 72 HOURS BEFORE PERMITTING HEAVY PEDESTRIAN OR VEHICULAR TRAFFIC ON TO THE FINISHED SURFACE.

NOTE: *If an aliphatic topcoat is required use Eco-FLA. See appropriate Product Bulletin.*

TECHNICAL SUPPORT

For any preparation or application questions, please call Tennant technical support at 800-228-4943, option 4 (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 4 (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 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

This warranty applies to all Specialty Surface Coatings, with the following exceptions: Eco-Hard-N-Seal™, Eco-EDP™ (Electrostatic Dissipative Primer), Eco-EDE™ (Electrostatic Dissipative Epoxy), and SDS™ (Static Dissipative System). These products have a separate warranty policy.

Tennant Company warrants its Specialty Surface Coatings to be free from defective manufacture, improper formulation, and defective ingredients. Warranty covers replacement of materials only.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

In no event shall Tennant or Seller be liable for any incidental, consequential, or special damages arising out of the use of Tennant Specialty Surface Coatings. **THE ONLY REMEDY OF THE USER OR BUYER, AND THE ONLY LIABILITY OF TENNANT AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES, OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE) SHALL BE REPLACEMENT OF THE PRODUCT OR, AT THE ELECTION OF TENNANT OR SELLER, RETURN OF THE PURCHASE PRICE.**

No representative of Tennant has authority to give any other warranty or assume other liability. The presence of a Tennant employee during the application of Tennant's Specialty Surface Coatings does not extend or alter the warranty or limitations in any manner whatsoever.