30-Mil Epoxy/Urethane Hangar Floor System

DATA SHEET

DESCRIPTION:
The 30-Mil Epoxy/Urethane system is a three (3) coat, high build coating system consisting of two (2) coats of ES-3150 Epoxy and a final finish coat of ES-5322, a chemical resistant urethane.

Available in a wide variety of colors achievable by mixing the clear ES-3150 Epoxy or clear ES-5330 CRU with one of 16 "specialty" urethane/epoxy Colorants in the field.

RECOMMENDED USES:
The 30-Mil Epoxy Coating System is used on concrete floors in aircraft maintenance facilities, as well as auto and truck service area that are subjected to light to moderate traffic and typical chemical spillages.

FEATURES:
- Squeegee Applied, Self-Leveling
- Easy Mixing Ratio
- 16 Standard Colors
- Can Be Installed Smooth or With Various Degrees of Non-Slip
- VOC Compliant
- Good Chemical Resistance-Resists Brake Fluid, Battery Acid and Skydrol 500B.
- Good Abrasion Resistance

PACKAGING:
The ES-3150 Epoxy Coating is available in 15-gal and 165-gal units for easy job-site mixing and application.

The ES-5222 Urethane is available in semi-bulk, 15-Gal Units.

COVERAGE:

1st Coat	ES-3150 Epoxy	123 sq. ft./gal.	13 mils
2nd Coat	ES-3150 Epoxy	123 sq. ft./gal	13 mils
3rd Coat	ES-5330 Urethane	320 sf. ft./gal	5 mils

As with all coatings, coverage is dependent on the smoothness and porosity of the surface.

SURFACE PREPARATION:
The substrate must be clean, dry and sound with new concrete cured for at least 30 days at 70°F. Remove dust, laitance, grease, curing compounds, waxes, foreign particles, disintegrated or soft base materials, and any previously applied potentially incompatible coatings. Create a surface profile on concrete by steel shot blasting. Cracks and joints should be repaired before the installation of the ES-3150 Epoxy Coating.

If the concrete surface is not prepared properly, product adhesion will fail and warranties will be voided.

FOR OPTIMUM RESULTS:
- For Interior Use Only
- New Concrete Must Cure For at Least 30 Days @ 70˚F
- DO NOT Reduce The ES-3150 Epoxy Coating with Thinner
- DO NOT Use When Relative Humidity Exceeds 85% Indoors.
- DO NOT Apply to Structurally Unsound Surfaces.
- DO NOT Apply heavier than recommended wet film thickness.
- Allow Each Coat to Dry Tack-Free Before Recoating.
- Apply Subsequent Coats Within 24 Hours of Previous Coat.
- Test Compatibility With Existing Coatings Prior to Top Coatings

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General Properties:	Data
Shelf Life	Epoxy: 2 Years Urethane; 1-Year
Colors	Clear & Variety with Field Colorants
Induction	None
Coverage	ES-3150 is 123sq. ft. per gal @ 13 mils per coat. ES-5330 is 320 sq. ft. per gal @ 5 mils
Mixing Ratio: (A to B)	ES-3150 is 1:2 by volume … ES-5322 is 1:2 by volume
Application Temp & Humidity	55˚F to 85˚F @ less than 75% R.H.
Application Methods	Flat or Notched Squeegee & High quality 3/8" nap roller
Cure Rate @ 75 ° F	
Recoat	5-6 hrs.
Foot Traffic	10 hrs.
Heavy Traffic	48+ hrs.
Chemical Resistance	72+ hrs.

Test	Method	Typical Values
Bond Strength (psi)	ACI COM #503 (pp. 1139-1141)	400+ w/ concrete failure
% Solids by Volume	ASTM D-1644	99.5% Epoxy 65-70% Urethane
UV Light Resistance	Q-U-V Accelerated Weather Tester	Good
Hardness-Shore D	ASTM D-2240	84+
VOC	D3960	Epoxy: 0 g/l CRU: 335 g/l
Gloss (60˚)	BYK-Gardner Tri-Gloss	90+
Impact Resistance	ASTM D-2794	>160 in-lbs.
Indentation	MIL-D-3134F	None
Abrasion Resistance (mg) (CS-17 wheel, 1000 GM load, 1,000 cycles)	ASTM D-1044	35*
Flammability	ASTM D-635	Self-Extinguishing
Dry Heat Resistance		140 ˚F Constant 200 ˚F Intermittent
Water Absorption (%)	ASTM C-413	0.17%

*Abrasion resistance results based on total epoxy/urethane system.

Review ECONO SURF's Material Safety Data Sheets (MSDS) for this product prior to mixing and applying. In addition, thoroughly review the Application Guide and product labels.

MIXING:

Avoid mixing and application of this product if the floor temperature is below 55˚F or above 85˚F. Also, avoid application if the relative humidity is higher than 75%. The temperature of the floor, materials and air in the area of the installation all play a role in how the product will apply and cure.

If Colorants are to be used with the ES-3150 Epoxy Coating- Clear, or the ES-5322 Urethane, the appropriate quantity of Colorant is first added to the Part-B Resin and mixed in uniformly before the Part-A Hardener is added. Generally, one quart of Colorant is added for every 3-gal of mixed product.

DO NOT change the ratio of A to B.

ES-3150 Epoxy 1:2 ratio by volume
ES-5330 Urethane 1:2 ratio by volume

Blend thoroughly for a minimum of 2 minutes with a "Jiffy" or "Spiral" mixing blade attached to a low-speed (400-600 RPM) electric drill. Take care not to induce air into the material when mixing. This will cause "bubbles" in the coating when applied.

APPLICATION:

1. Pre-patch all large holes, divots, cracks, etc., using an epoxy paste made of Econo Surf 3150 Epoxy and Cab-O-Sil TS-720.
2. Notch squeegee apply 13-mils (123sq. ft./gallon), 100% solids pigmented epoxy (ES-3150 Epoxy) and back roll to level using a 3/8" nap, 18" wide, mohair roller.
3. Notch squeegee apply 13-mils (123 sq. ft./gallon) of a pigmented 100% solids epoxy (ES-3150) and back roll to level using a 3/8" nap, 18" wide, mohair roller.
4. Power sand/screen the entire area (if necessary) to remove surface defects such as grit, air bubbles, etc. and tack rag clean to remove fine dust using a floor sander with #80 grit sand paper.
5. Sweep and/or vacuum to remove residual epoxy dust and other contaminates.
6. Roller apply one (1) finish coat of ES- 5322 CRU using a 1/2" nap, 18" wide, mohair roller at approximately 5 mils (320sq. ft./gallon). Avoid excess agitation of the liquids with the roller. This will lessen chances of bubbling of the final film.

POT LIFE:

At 75˚F and 50% R.H., the ES-3150 Epoxy in both clear and pigmented systems has a useful working time or pot life of 15-20 minutes. The ES-5322 Chemical Resistant Urethane has a working time of approx. 1 to 2 hrs.

Using any product beyond this time will yield variable results and therefore any mixed product beyond the pot life should be discarded.

CLEAN UP:

Application equipment should be cleaned using soap and water or solvent where necessary. Roller covers should be discarded after use.

DISPOSAL:

Empty containers may contain product residue, including flammable or combustible vapors. Do not cut, puncture or weld near these containers. Label warnings must be observed until containers have been commercially cleaned or reconditioned. Any containers to be thrown out must be disposed in accordance with federal, state and local regulations.

CUSTOMER NOTE:

For information on application situations not covered above, contact the corporate office at 1-302-322-4920.

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