ECONOSURF

8/20 Mil Epoxy/Urethane Systems

DATA SHEET

DESCRIPTION:
The 8 or 20 mils Epoxy/Urethane coating system is a two (2)coat system consisting of either one application of 65% solids polyamide epoxy (ES-3144), top coated with one application of 65% solids aliphatic urethane (ES-5322) or one 16 mils application of 100% solids epoxy (ES-3150) with the same top coat of chemical resistant, aliphatic urethane. These systems are specifically designed to be applied over a wet prepared (acid etched) surface.

Available in clear and 16 “standard” colors by mixing the “clear” Epoxy or CRU systems with one of 16 “specialty” urethane/epoxy Colorants in the field.

RECOMMENDED USES:
These thin film 8 or 20 mils systems are best suited for light duty service areas (aircraft and auto) or for aircraft and auto parking areas. They are also utilized where cost is the primary factor.

FEATURES:
- Easy Application … Roller Applied
- Easy Mixing Ratio
- 16 Standard Colors
- Can Be Installed Smooth or With Various Degrees of Non-Slip
- Thin Film but VOC Compliant
- Good Chemical Resistance-Resists Brake Fluid, Battery Acid and Skydrol 500B
- Good Abrasion Resistance
- Easily Re-Coated After a Few Years of Service

PACKAGING:
The ES-3144 Epoxy is available in 2-gal and 10-gal units. The ES-3150 Epoxy Coatings are available in 15-gal and 165-gal units. The ES-5322 Chemical Resistant Urethane is available in 15-gal semi-bulk units.

COVERAGE:

ES-3144 Epoxy	250 sq.ft./gal.
ES-3150 Epoxy	100 sq.ft./gal.
ES-5322 Urethane	300 sq.ft./gal.

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

SURFACE PREPARATION:
Best results are achieved when diamond grinding and/or chemical preparation processes are utilized. Shot blasting is not recommended unless aesthetics are no concern. Attempting to install these systems over a shot blasted surface stands a 95% chance that the shot blast overlap lines will telegraph through the coating.

The substrate must be clean, dry and sound with new concrete cured for at least 30 days at 70F. 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 acid etching. Cracks and joints should be repaired before the installation of the 8 or 20 mils Epoxy/Urethane coating system.

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

FOR OPTIMUM RESULTS:
- For Interior Use.
- New Concrete Must Cure For at Least 30 Days @ 70˚F
- DO NOT Reduce The ES-3144 or ES-3150 Epoxy Coating with Thinner
- DO NOT Use When Relative Humidity Exceeds 75% Indoors.
- DO NOT Apply to Structurally Unsound Surfaces.
- DO NOT Apply The ES-3144 Epoxy or ES-5322 CRU heavier than recommended wet film thickness.
- Allow Each Coat to Dry Tack-Free Before Recoating.
- Apply Subsequent Coats Within 24 Hours of Previous Coat.
- Before Attempting to Over Coat Ensure Compatibility Over Old Paint

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General Properties:	Data
Shelf Life	2 Years on Epoxy; One Year on CRU
Colors	Clear & Variety with Colorants
Induction Time	None
Application Temp & Humidity	55°F to 85°F @ less than 75% R.H.
Cure Rate @ 75 °F	
Recoat	5-6 hrs.
Foot Traffic	10 hrs.
Heavy Traffic	24+ 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	100.0
Flash Point	Pensky-Martens CC	>200°F
UV Light Resistance	Q-U-V Accelerated Weather Tester	Good
Hardness-Shore D	ASTM D-2240	84+
VOC	EPA Method 24	0.27 lbs/gal
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	65
Flammability	ASTM D-635	Self-Extinguishing
Dry Heat Resistance		140 °F Constant 200 °F Intermittent
Water Absorption (%)	ASTM C-413	0.17%

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. DO NOT change the ratio of A to B.

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.

ES-3144 Epoxy	1:1 ratio
ES-3150 Epoxy	1:2 ratio
ES-5322 Urethane	1:2 ratio

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:

Pre-patch all large holes, divots, cracks, etc., using an epoxy paste made of Econo Surf 3150 Epoxy and Cab-O-Sil TS-720.

8-Mil System

1. Roller apply one (1) base coat of a 65% solids clear or pigmented polyamide epoxy (ES-3144 Epoxy) using a 1/2" nap, 18" wide, mohair roller at approximately 6.5 wet mils (250 sq. ft./gallon). This yields about 4.5-dry mils.
2. If requested by customer, broadcast #36 aluminum oxide non-skid at a rate of approximately one (1) lb per 1,000 square feet into the wet film of the epoxy base coat.
3. Allow to cure minimum 6 hours then roller apply one (1) finish coat of a pigmented, V.O.C. compliant, chemical resistant aliphatic urethane (ES-5322 CRU) using a 1/2" nap, 18" wide, mohair roller at approximately 5.4 wet mils (300 sq. ft./gallon). This yields about 3.5 dry mils.

20-Mil System

1. Notch or flat squeegee apply one (1) base coat of a 100% solids clear or pigmented epoxy (ES-3150 Epoxy) and back roll using a 3/8" or 1/2" nap, 18" wide, mohair roller at approximately 16.5 mils (97 sq. ft./gallon).
2. If requested by customer, broadcast #24 aluminum oxide non-skid at a rate of approximately one (1) lb per 1,000 square feet into the wet film of the epoxy base coat.
3. Allow to cure minimum 6 hours then roller apply one (1) finish coat of a clear or pigmented, V.O.C. compliant, chemical resistant aliphatic urethane (ES-5322 CRU) using a 1/2" nap, 18" wide, mohair roller at approximately 5.4 wet mils (300 sq. ft./gallon). This yields about 3.5 dry mils.

POT LIFE:

At 75°F and 50% R.H., the useful pot life of each product is as follows:

ES-3144 Epoxy	2-3 hours
ES-3150 Epoxy	15-20 minutes
ES-5322 Urethane	1-2 hours

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 aromatic 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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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: <100 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	31*
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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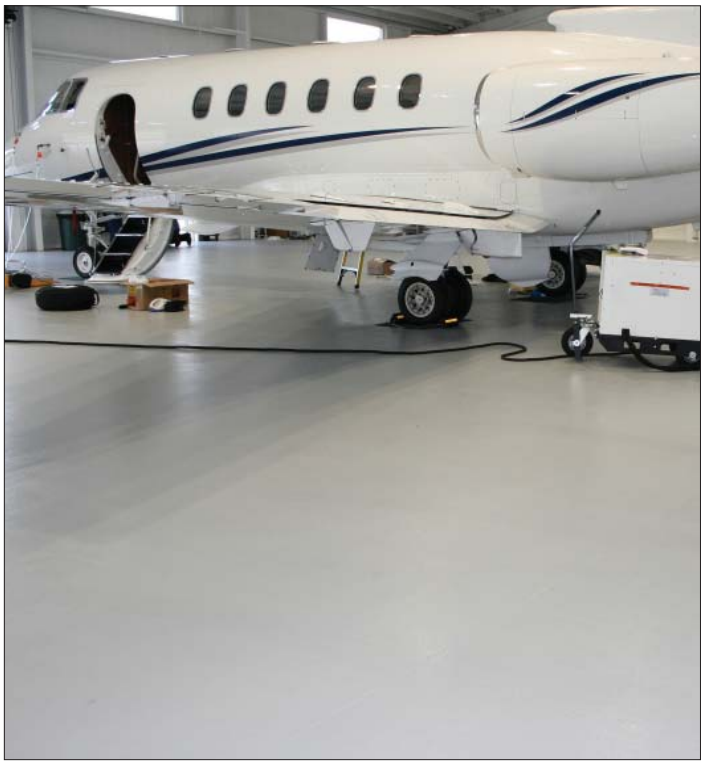
65-Mil Broadcast System

DATA SHEET

DESCRIPTION:
ES-2065 Broadcast System is a 65-mil multi-product system that includes a 100% solids semi-rigid epoxy receiver coat, a 100% solids top coat, a 4-mil aliphatic urethane finish coat and aggregate layered together to form a 65-mil broadcast flooring system. This system exhibits very good chemical, wear and chip resistance.

A total of 16 different standard colors can be achieved by mixing the clear epoxy coating in the ES-2065 Broadcast System and the clear chemical resistant urethane finish coat with one of 16 "specialty" urethane/epoxy Colorants in the field.



RECOMMENDED USES:
The ES-2065 Broadcast Coating System is designed for use on aircraft service area floors that are subjected to moderate to heavy traffic and chemical spillage. This system is also used in auto and truck service area floors.

PACKAGING:
The liquid components of the 65-mil Solid Color Broadcast System are available in semi-bulk and bulk liquid units. The silica flour is available in 50-lb. bags, while the "special" broadcast aggregate is available in 100-lb.bags.

COVERAGE:
The "semi-rigid" 2200 Epoxy Receiver Coat (with the silica flour) is applied at the rate of 30-mils (53.3 sq. ft./gal) and the aggregate is broadcast at the rate of 0.67-lbs. per sq. ft. per application layer. The 3150 Epoxy Top Coat is applied at the rate of 80-90 sq. ft. per gallon depending on the final surface texture desired. The VOC-Chemical Resistant Urethane finish coat is applied at 300 sq. ft./gal.

FEATURES:

- 16 Standard UV Stable Colors
- Good Chemical Resistance-Resists Brake Fluid, Battery Acid, Skydrol 500B
- Good Abrasion Resistance
- VOC Compliant products
- Gloss Finish; Final floor requires less maintenance and upkeep.
- Will give your facility a bright, clean and professional appearance.
- Full Range of textures; provides a safe surface on which to work.
- Can Be Installed With an Integral Cove Base to Create a Monolithic Floor

SURFACE PREPARATION:
In general, 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 65-mil Broadcast System.

1. If the floor has an existing paint or coating to be removed, grind the entire area using a self-contained, dust controlled, 480 volt 30-amp, "Diamond Grinder" (Photo #1).
2. Using a 15", 480-volt "Shot Blast" unit (Photo #2), profile the bare concrete floor surface to affect an approximate 80-grit sand paper finish to achieve a sound mechanical bonding surface for the squeegee applied, 100% solids epoxy.
3. Power sand and/or hand grind (using vacuumized diamond grinders) all edges, perimeter areas, etc. that are inaccessible to the shot blast equipment. If necessary, clean out ALL expansion, isolation and control joints using a concrete saw.
4. Power sweep and/or vacuum the surface to remove all laitance, dust and excess shot.

Photo #1

Photo #2

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

FOR OPTIMUM RESULTS:

- New Concrete Must Cure For at Least 30 Days @ 70°F and tested for moisture content.
- DO NOT Reduce the Epoxy components … with ANY thinner.
- DO NOT Use when Humidity Exceeds 75% Indoors.
- DO NOT Apply to Structurally Unsound Surfaces.
- 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 Application of This System

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

General Properties:	Data
Shelf Life	2 Years
Application Temp & Humidity	55°F to 85°F @ less than 75% R.H.
Induction	None
Mixing Ratio: (A to B)	Receiver Coat & Top Coat: 1 to 2 ratio; CRU 1 to 2 ratio
Colors	Variety with Urethane/Epoxy Colorants
Working Time @ 75 °F	Receiver Coat: 25 minutes; Top Coat: 18-20 minutes.
Application Methods	Receiver Coat: Notched Squeegee & High quality 3/8" nap roller; Top Coat: Flat Squeegee & High quality 3/8" nap roller.
Cure Rate @ 75 °F	
Recoat	10 hrs.
Foot Traffic	14 hrs.
Heavy Traffic	24+ 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	100.0
Flash Point	Pensky-Martens CC	>200°F
UV Light Resistance	Q-U-V Accelerated Weather Tester	Good
Hardness-Shore D	ASTM D-2240	84+
VOC	EPA Method 24	0.12 lbs./gal
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	72
Flammability	ASTM D-635	Self-Extinguishing
Dry Heat Resistance		140 °F Constant 200 °F Intermittent
Compression Strength (psi)	ASTM C-579	14,000
Tensile Strength (psi)	ASTM C-307	9,500
Flexural Strength (psi)	ASTM D-790	15,500
Water Absorption (%)	ASTM C-413	0.18%

MIXING:

Avoid mixing and application of these products 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 65-Mil Broadcast Coating System, the appropriate quantity of Colorant is added to the Part-B Resin and mixed in uniformly before the Part-A Hardener is added.

Blend the Part-A and Part-B components 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 or Garamite 1958.
2. Notch squeegee apply a coat of 100% solids epoxy (Econo Surf 2200 Receiver Coat) filled with Sil-Co-Sil 125 at the rate of 30-mils or 53.3 sq. ft./gal and back roll to level using a 3/8" nap, 18" wide, roller sleeve.
3. Seed (broadcast) to excess (rejection) with a specially blended silica aggregate at the rate of 0.67 lbs. per sq. ft.
4. Sweep and /or vacuum to remove all excess silica aggregate.
5. Saw cut all moving joints as required and fill them with a flexible epoxy joint material.
6. Sweep and /or vacuum to remove dust, debris, contamination etc. resulting from the sanding/cutting process.
7. Notched or flat squeegee apply 20-mils (80 sq. ft./gal) of clear, 100% solids epoxy (Econo Surf 3150 Epoxy) and back roll to level using a 3/8" or 1/2" nap (depending on the desired finished texture), 18" roller sleeve.
8. Roller apply one (1) finish coat of a pigmented, V.O.C. compliant, chemical resistant aliphatic urethane (Econo Surf 5322 CRU) using a 1/2" nap, 18" wide, mohair roller at approximately 5-mils (300 sq. ft./gallon).

POT LIFE:

Based on 75°F and 50% R.H., the Receiver Coat has a pot life of 22-25 minutes while the Epoxy Top Coat has a pot life of 18-20 minutes. Using any product beyond this time will yield variable results and therefore any mixed product beyond the pot life should be discarded. Only the amount of urethane that can be applied within 30 minutes should be mixed at one time.

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 1-302-322-4290.

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FLOOR COATINGS ETC. INC.

HANGAR FLOORS- PREPARATION AND INSTALLATION SPECIFICATIONS FOR:

8-MIL EPOXY/URETHANE SYSTEM

20-MIL EPOXY/URETHANE SYSTEM

SURFACE PREPARATION FOR EITHER SYSTEM:

1. If the floor has an existing paint or coating to be removed, grind the entire area using a self-contained, dust controlled, 480 volt 30-amp "Prep Master" diamond grinder" (Photo #1).

2. The existing coating or sealer can also be removed chemically using a methylene chloride based chemical stripper or Xylene or an appropriate aromatic solvent.

3. Reclaim the spent hazardous chemical-solvent waste. Place it in an EPA approved hazardous waste container. Label the container for ultimate disposal by the end user/customer.

4. Power scrub/degrease if required using an industrial grade high pH detergent (Photo#2).

5. Acid etch using a 4% to 8% solution of Hydrochloric (Muriactic) acid (20° Baumé) as recommended by the Portland Cement Association and NACE (Photo#2).

6. Neutralize the surface acid salts if required using an appropriate neutralizing agent such as tri sodium phosphate.

7. High pressure wash/rinse thoroughly with clean potable water and vacuum dry.

Photo #1

Photo #2

PRODUCT INSTALLATION: 8-MIL THIN FILM EPOXY COATING (WITH URETHANE TOPCOAT)

Description: A (2) coat, 8 dry mils, thin film coating system with a chemically resistant, aliphatic urethane topcoat.

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. Grind smooth where necessary. Sweep and/or vacuum to remove residual epoxy dust and other contaminates.

2. Roller apply one (1) base coat of a pigmented, 65% solids clear or pigmented polyamide epoxy (ES-3144 Epoxy) using a 1/2" nap, 18" wide, mohair roller at approximately 6.5 wet mils (250 sq. ft./gallon). This yields about 4.5-dry mils.

3. If requested by customer, broadcast #36 aluminum oxide non-skid at a rate of approximately one (1) lb per 1,000 square feet into the wet film of the epoxy base coat.

4. Allow to cure minimum 6 hours then roller apply one (1) finish coat of a pigmented, V.O.C. compliant, chemical resistant aliphatic urethane (ES-5322 CRU) using a 1/2" nap, 18" wide, mohair roller at approximately 5.4 wet mils (appr.300 sq. ft./gallon). This yields about 3.5 dry mils.

5. The total dry film thickness will be 8 dry mils depending on roughness of the concrete substrate.

6. Material Requirements per 1,000 sq. ft.:

   - ❑ 4.0 gallons of ES-3144 Epoxy
   - ❑ 3.3 gallons ES-5322 CRU

PRODUCT INSTALLATION: 20-MIL HIGH BUILD EPOXY COATING (WITH URETHANE TOPCOAT)

Description: A (2) coat, 20 dry mils, thin film coating system with a chemically resistant, aliphatic urethane topcoat.

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. Grind smooth where necessary. Sweep and/or vacuum to remove residual epoxy dust and other contaminates.

2. Notch or flat squeegee apply one (1) base coat of a pigmented, 100% solids clear or pigmented epoxy (ES-3150 Epoxy) and back roll using a 3/8" or 1/2" nap, 18" wide, mohair roller at approximately 16.5 mils (97 sq. ft./gallon).

3. If requested by customer, broadcast #24 aluminum oxide non-skid at a rate of approximately one (1) lb per 1,000 square feet into the wet film of the epoxy base coat.

4. Allow to cure a minimum of 6 hours then roller apply one (1) finish coat of a pigmented, V.O.C. compliant, chemical resistant aliphatic urethane (ES-5322 CRU) using a 1/2" nap, 18" wide, mohair roller at approximately 5.4 wet mils (appr.300 sq. ft./gallon). This yields about 3.5 dry mils.

5. The total dry film thickness will be 20 dry mils depending on roughness of the concrete substrate.

6. Material Requirements per 1,000 sq. ft.:

   - ❑ 10.3 gallons of ES-3150 Epoxy
   - ❑ 3.3 gallons ES-5322 CRU

TEXTURED AND NON-SKID SURFACES STATEMENT:

- ❑ The degree or amount of texture or non-skid that is used in a given coating is relative. Therefore, it is imperative that our customer determine the degree of non-skid required for his/her particular floor. FCEI cannot and will not accept the liability or responsibility for this decision.

- ❑ Our supervisor will be happy to inform your representative several hours in advance of when the non-skid or textured finish will be installed. Should you choose not to have one of your representatives present during this process, you are hereby accepting the degree of non-skid that will be installed by our supervisor.

FLOOR COATINGS ETC., INC.

P.O. Box 784 • New Castle, DE 19720

Phone: 302-322-4177 • Fax: 302-322-4457

PREPARATION AND INSTALLATION SPECIIFICATIONS FOR:

30-MILS HIGH BUILD COATINGS (WITH URETHANE TOPCOAT)

SURFACE PREPARATION:

1. If the floor has an existing paint or coating to be removed, grind the entire area using a self-contained, dust controlled, 480 volt 30-amp, "Diamond Grinder" (Photo #1).

2. Using a 15", 480-volt "Shot Blast" unit (Photo #2), profile the bare concrete floor surface to affect an approximate 80-grit sand paper finish to achieve a sound mechanical bonding surface for the squeegee applied, 100% solids epoxy.

3. Power sand and/or hand grind (using vacuumized diamond grinders) all edges, perimeter areas, etc. that are inaccessible to the shot blast equipment.

4. If necessary, clean out ALL expansion, isolation and control joints using a concrete saw.

5. Power sweep and/or vacuum the surface to remove all laitance, dust and excess shot.

Photo #1

Photo #2

PRODUCT INSTALLATION: 30-MILS HIGH BUILD COATINGS (WITH URETHANE TOPCOAT)

Description: A (3) coat, 30 dry mils, high build coating system with a chemically resistant, aliphatic urethane topcoat.

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 14-mils (114 sq. ft./gallon) Sil-Co-Sil 125 filled 100% solids epoxy (Econo Surf 3150 Epoxy) and back roll to level using a 3/8" nap, 18" wide, mohair roller.

3. Notch squeegee apply 12-mils (133 sq. ft./gallon) of a pigmented 100% solids epoxy (Econo Surf 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.

5. Sweep and/or vacuum to remove residual epoxy dust and other contaminates.

6. If required, broadcast #24 or #36 aluminum oxide safe walk grit onto the cured epoxy basecoat at a rate designated by the customer's representative (typically one-lb. per 1,000 sq. ft.) See statement on textured and non-skid surfaces below.

7. Roller apply one (1) finish coat of a pigmented, V.O.C. compliant, chemical resistant aliphatic urethane (Econo Surf 5322 CRU) using a 1/2" nap, 18" wide, mohair roller at approximately 5 mils (300 sq. ft./gallon).

8. Material Requirements per 1,000 sq. ft.:

   - ❑ 16.25 gallons of ES-3150 Epoxy
   - ❑ 5.5 quarts UR-4 Colorant (if pigmented)
   - ❑ 3.3 gallons ES-53220 CRU

NOTATION ON SMOOTH SURFACES:

- ❑ ANY coating system that is meant to be smooth (no non-skid or texture) WILL HAVE some degree of surface defects – especially if a solvent or water based urethane is the finish coat. All coatings that are less than 100% solids are subject to out gassing bubbles resulting from heat, cold humidity, air movement, etc. It is virtually impossible to install a roller applied coating devoid of these types of surface defects.

TEXTURED AND NON-SKID SURFACES STATEMENT:

- ❑ The degree or amount of texture or non-skid that is used in a given coating is relative. Therefore, it is imperative that our customer determine the degree of non-skid required for his/her particular floor. FCEI cannot and will not accept the liability or responsibility for this decision.

- ❑ Our supervisor will be happy to inform your representative several hours in advance of when the non-skid or textured finish will be installed. Should you choose not to have one of your representatives present during this process, you are hereby accepting the degree of non-skid that will be installed by our supervisor.

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PREPARATION AND INSTALLATION SPECIFICATIONS FOR:

ES-2065 65-MIL BROADCAST SHOP FLOOR

ES-2400 65-MIL BROADCAST DECORATIVE QUARTZ SYSTEM

SURFACE PREPARATION FOR EITHER SYSTEM:

1. If the floor has an existing paint or coating to be removed, grind the entire area using a self-contained, dust controlled, 480 volt 30-amp, "Diamond Grinder" (Photo #1).

2. Using a 15", 480-volt "Shot Blast" unit (Photo #2), profile the bare concrete floor surface to affect an approximate 80-grit sand paper finish to achieve a sound mechanical bonding surface for the squeegee applied, 100% solids epoxy.

3. Power sand and/or hand grind (using vacuumized diamond grinders) all edges, perimeter areas, etc. that are inaccessible to the shot blast equipment.

4. If necessary, clean out ALL expansion, isolation and control joints using a concrete saw.

5. Power sweep and/or vacuum the surface to remove all laitance, dust and excess shot.

Photo #1

Photo #2

PRODUCT INSTALLATION NOTES:

The difference between a 65-mils solid color shop floor and a 65-mils decorative color quartz floor is that the shop floor utilizes a blend of silica sand and pigmented top coats while the decorative color quartz utilizes a blend of colored quartz particles and clear top coats.

It is also important to note that with either of these systems, ALL moving joints are honored. They can be filled before the system is installed to create a seamless floor or ANY other point in the process. Consult your Econo Surf technical representative for descriptions and explanations of the different methods. If a 4" integral cove base is being installed, it is done prior to the installation of the flooring.

PRODUCT INSTALLATION: 65-MIL BROADCAST FLOORS(WITH URETHANE TOPCOAT)

Description: A (3) coat, 65-mil full aggregate broadcast system with a chemically resistant, aliphatic urethane topcoat.

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 or Garamite.

2. Notch squeegee apply a coat of 100% solids epoxy (Econo Surf 2200 Receiver Coat) filled with Sil-Co-Sil 125 at the rate of 30-mils or 53.3 sq. ft./gal and back roll to level using a 3/8" nap, 18" wide, roller sleeve.

3. Seed (broadcast) to excess (rejection) a specially blended silica aggregate at the rate of 0.67 lbs. per sq. ft.

4. Sweep and /or vacuum to remove all excess silica aggregate.

5. If an "orange peel" texture is desired, power sand the exposed aggregate at the rate of approximately 2,000 sq. ft./hour using a slow speed floor buffer with a 60-grit sanding head.

6. Saw cut all moving joints as required and fill them with a flexible epoxy joint material.

7. Sweep and /or vacuum to remove dust, debris, contamination etc. resulting from the sanding/cutting process.

8. Notched or flat squeegee apply 20-mils (80 sq. ft./gal) of pigmented, 100% solids epoxy (Econo Surf 3150 Epoxy) and back roll to level using a 3/8" nap (depending on the desired finished texture), 18" roller sleeve.

9. Roller apply one (1) finish coat of a pigmented, V.O.C. compliant, chemical resistant aliphatic urethane (Econo Surf 5322 CRU) using a 3/8" nap, 18" wide, mohair roller at approximately 5 mils (300 sq. ft./gallon).

10. Material Requirements per 1,000 sq. ft.:

    - ❑ 12.5 gallons of ES-2200 Epoxy for Receiver Coat
    - ❑ 50-lbs. Sil-Co-Sil 125
    - ❑ 667 –lbs. Silica aggregate for Receiver Coat
    - ❑ 12.5 gallons of ES-3150 Epoxy for Dress Coat
    - ❑ 3.3 gallons ES-5322 CRU for Finish Coat

PRODUCT INSTALLATION: ES-2400 65-MIL QUARTZ BROADCAST FLOORS(WITH URETHANE TOPCOAT)

Description: A (3) coat, 65-mil full Decorative Quartz aggregate broadcast system with a chemically resistant, aliphatic urethane topcoat.

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 or Garamite 1958.

2. Notch squeegee the pigmented initial coat of the 100% solids, 3150 Epoxy (with the silica flour) at the rate of 30-mils (53.3 sq. ft./gal) and back roll to level using a 3/8" nap, 18" wide, roller sleeve.

3. Seed (broadcast) to excess (rejection) with a specially blended silica aggregate at the rate of 0.67 lbs. per sq. ft.

4. Sweep and /or vacuum to remove all excess silica aggregate.

5. Saw cut all moving joints as required and fill them with a flexible epoxy joint material.

6. Sweep and /or vacuum to remove dust, debris, contamination etc. resulting from the sanding/cutting process.

7. Notched or flat squeegee apply 20-mils (80 sq. ft./gal) of clear, 100% solids epoxy (Econo Surf 3150 Epoxy) and back roll to level using a 3/8" or 1/2" nap (depending on the desired finished texture), 18" roller sleeve.

8. Roller apply one (1) finish coat of a pigmented, V.O.C. compliant, chemical resistant aliphatic urethane (Econo Surf 5322 CRU) using a 1/2" nap, 18" wide, mohair roller at approximately 5-mils (300 sq. ft./gallon).

9. Material Requirements per 1,000 sq. ft.:

    - ❑ 12.5 gallons of ES-2200 Epoxy for Receiver Coat
    - ❑ 50-lbs. Sil-Co-Sil 125
    - ❑ 667–lbs. Decorative Quartz aggregate for Receiver Coat
    - ❑ 12.5 gallons of ES-3150 Epoxy for Dress Coat
    - ❑ 3.3 gallons ES-5322 CRU for Finish Coat

TEXTURED AND NON-SKID SURFACES STATEMENT:

❑ The degree or amount of texture or non-skid that is used in a given coating is a relative decision. Therefore, it is imperative that our customer determine the degree of non-skid required for his/her particular floor. FCEI cannot and will not accept the liability or responsibility for this decision.

❑ Our supervisor will be happy to inform your representative several hours in advance of when the non-skid or textured finish will be installed. Should you choose not to have one of your representatives present during this process, you are hereby accepting the degree of non-skid that will be installed by our supervisor.