ES-2425
125-Mil Quartz Broadcast System

DATA SHEET

DESCRIPTION:
ES-2425 125-mil Broadcast Decorative Quartz(Tweed) System is an 1/8" thick system (125 mils) consisting of two (2) applications of 100% solids, squeegee applied 'bulked up" epoxy with the color quartz aggregate blend, followed by a top coat application of a 100% solids epoxy system. An optional satin to high gloss aliphatic urethane finish coat is usually applied.

This system exhibits very good chemical, abrasion, chip and UV resistance. It is available in virtually hundreds of tweed color blends and can be installed in varying degrees of texture—from smooth to severe. It is also installed vertically to create a "bath tub" effect for clean rooms.

RECOMMENDED USES:
This system is used on concrete floors that are subjected to light to moderate traffic and chemical spillage.

Fire House amd EMS Facilities: Apparatus Bays, lounges, offices, etc. that are NOT subject to direct continuous sunlight. Kitchens, lunchrooms, bathrooms, locker rooms, and anywhere seamless "grout joint free" easy to maintain semi permanent floors would be beneficial.

COVERAGE:
The two "Receiver Coats" of 3150-Epoxy, bulked up with Sil-Co-Sil 125, are applied at the rate of 30-mils or 53.3 sq. ft. per gallon. The color quartz aggregate is broadcast into each receiver coat at the rate of 0.67-lbs. per sq. ft.

The "Top Coat" of 3150 Epoxy is applied at the rate of 80-90 sq. ft. per gallon depending on the final surface texture desired. The ES-5322-Chemical Resistant Urethane finish coat is applied at 300 sq. ft. per gallon.

FEATURES:

- A system alternative to VCT and Ceramic
- Requires Minimum Maintenance and Has NO Grout Joints
- Very Good Chemical and Abrasion Resistance
- VOC Compliant—Solvent Free
- Satin to High Gloss Finish
- Full Range of Textures
- Hundreds of Blended Tweed Colors
- USDA Accepted
- Can be Installed With 4" to 6" Integral Troweled Cove Base

PACKAGING:
The liquid components of the ES-2425 125-mil Broadcast Decorative Quartz System are available in semi-bulk and bulk liquid units for easy job-site mixing and application. The "color" quartz decorative aggregate is available in 50-lb. bags. The ES-5322 Chemical Resistant Urethane is available in 15-gal semi-bulk units.

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, concrete slag, disintegrated or soft base materials, and ANY previously applied and potentially incompatible coatings. Create an adequate surface profile (similar to 80 to 100 grit sand paper) on concrete by mechanical steel shot blasting and/or diamond grinding. Stress cracks, joints, holes and divots etc., should be repaired prior to the application of the system. If the concrete surface is not prepared properly, product adhesion will fail and warranties will be voided.

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".
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.

Photo #1

Photo #2

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

General Properties:	Data
Shelf Life	2 Years
Colors	Unlimited; Multi-Colored based on aggregate blend used
Induction	None
Coverage:	Two Receiver Coats @ 53.3/gal or 30 mils; Top Coat: 80-90 @ 18-20 mils ;Finish Coat: 300 @ 5.3 mils
Mixing Ratio: (A to B)	1:2 by volume for 3150 Epoxy; 1:2 by volume for CRU clear
Application Temp & Humidity	55˚F to 85˚F @ less than 75% R.H.
Packaging	15 Gal and 165-gal Units of 3150 Epoxy
Working Time @ 75 ° F	3150: 18-20 min.; 5322 CRU: 3-hrs.
Application Methods	Notched & Flat Squeegee & High quality 3/8" nap roller
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	0.12 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	55*
Flammability	ASTM D-635	Self-Extinguishing
Dry Heat Resistance		140 °F Constant 200 °F Intermittent
Compression Strength (psi)	ASTM D-695	13,100
Tensile Strength (psi)	ASTM D-638	7,100
Flexural Strength (psi)	ASTM D-790	8,250
Water Absorption (%)	ASTM C-413	0.18%
Dry Heat Resistance		140 ˚F Constant 200 ˚F Intermittent
Water Absorption (%)	ASTM C-413	0.18%

- *Based on using ES-5322 CRU

FOR OPTIMUM RESULTS:

- New Concrete Must Cure For at Least 30 Days @ 70˚F and tested for acceptable moisture levels.
- DO NOT Reduce the Epoxy components of the ES-2425 Broadcast System with ANY thinner.
- DO NOT Use When Temperature of Floor is below 55˚ F or above 85˚ F or if the Humidity Exceeds R.H. of 75% Indoors.
- DO NOT Apply to Structurally Unsound Surfaces.
- Apply subsequent coats within 24 Hours of Previous Coat.
- Test Compatibility With Existing Coatings Prior to Top Coating

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 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.

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 of 125-Mil DOUBLE BROADCAST DECORATIVE QUARTZ SYSTEM:

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 the 1st Receiver Coat which consists of 100% solids epoxy (Econo Surf 3150-Epoxy) bulked up with Sil-Co-Sil 125 and applied at an approximate blended thickness of 30-mils (53.3 sq. ft./gal), and back rolled to level using a 3/8" nap, 18" wide, roller sleeve.
3. Seed (broadcast) to excess (rejection) with color quartz aggregate at the rate of 0.67 lbs. per sq. ft.
4. Sweep and /or vacuum to remove all excess color quartz aggregate.
5. For the 2nd Receiver Coat, steps 2, 3, 4 are repeated.
6. Then notched or flat squeegee apply 20-mils (80 sq. ft./gal) of a 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.
7. Roller apply one (1) finish coat of a clear, 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).
8. Saw cut all moving joints as required and fill them with a flexible epoxy joint material. Sweep and /or vacuum to remove dust, debris, contamination etc. resulting from the sanding/cutting process.

POT LIFE:
Based on 75˚F and 50% R.H., the Receiver Coats and Top Coat have a pot life of are 18-20 minutes. The CRU Finish Coat has a pot life of approx. 2-hrs. 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 1-302-322-4920.

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