



TECHNICAL DATA

COLORCOAT AL-ESTER

High Solids Aliphatic Top Coat

1. PRODUCT DESCRIPTION

COLORCOAT AL-ESTER is a single component, liquid applied, moisture-cured, aliphatic polyester-polyurethane surface protection coating.

2. BASIC USES

COLORCOAT AL-ESTER is a wear surface and waterproofing topcoat used in the TUFFLEX Systems. When COLORCOAT AL-ESTER is incorporated into these systems, it helps to protect concrete and plywood decks, parking structures, mechanical equipment pads and areas that require a seamless membrane system for protection against water damage. It can also be used on substrates in industrial locations, heavy vehicular and pedestrian traffic areas, and on many other properly prepared substrates. COLORCOAT AL-ESTER can also be used as a topcoat for polyurethane athletic track surfaces that need protection from oils, greases, mild chemical spillage and ultraviolet light. Do not use in areas of water immersion such as water parks and ponds.

3. COLORS

Six (6) STANDARD COLORS: Pacific Gray, Sidewalk Gray, Rocky Gray, Monterey Sand, Ash Brown and Desert Tan. Custom colors and non-stocking colors are available with minimum ordering quantities. Contact our Order Desk for further information.

Available in 5 gallon and 55 gallon containers.

4. GENERAL INFORMATION

BASIC USES: COLORCOAT AL-ESTER is the abrasion-resistance and weather resistant Top Coat used in most of the TUFFLEX Vehicular Traffic Bearing and Pedestrian Deck Coating Systems. Please refer to the pertinent Installation Specification Data Sheet on each of these systems.

COLORCOAT AL-ESTER is used where optimum weather resistance, abrasion resistance and color stability are required. It is used in conjunction with TUFFLEX "TUFF" and TUFFLEX STANDARD OUTDOORS ELASTOMERIC Membranes. The cured top coat easily withstands the extreme environmental conditions encountered in exterior construction environments. When used in conjunction with elastomeric base membranes, the COLORCOAT AL-ESTER composite system contracts with lower temperatures and readily expands when temperatures increase. COLORCOAT AL-ESTER may also be used alone as an abrasion-resisting industrial maintenance coating.

LIMITATIONS: Containers that have been opened must be used within one or two days, since the product is a moisture-reactive material that will gel or set up when exposed to moisture in the air. Keep lid tightly sealed when material is not in use.

SHELF LIFE: Twelve (12) months after manufacture when continuously stored indoors in unopened metal pails at temperatures under 80°F. Stir thoroughly prior to use.

MIXING INSTRUCTIONS: Mix COLORCOAT AL-ESTER thoroughly before using or before adding the optional TUFFLEX CURE ACCELERATORS. Material should be mixed thoroughly with a mechanical mixer (Jiffy Mixer) at low RPM. Care must be taken not to whip air into the mixture as this may cause pin-holes.

5. INSTALLATION

SURFACE PREPARATION: All surfaces to be coated with COLORCOAT AL-ESTER must be thoroughly dry and free of all contaminants, including oxidation on old top coats or base coats as well as construction debris or deposits.

APPLICATION: COLORCOAT AL-ESTER is normally applied at a rate of 80-100 square feet per gallon, per coat, resulting in a film thickness of 16 to 20 wet mils. Coverage will vary depending on the aggregate size, texture or degree of surface porosity. The larger the aggregate used, the lower will be the coverage rate due to the greater surface area being covered. COLORCOAT AL-ESTER is easily applied by squeegee, roller, or notched trowel. ALWAYS FOLLOW BY BACKROLLING. At 50% relative humidity and 77°F, the coating will be dry to the touch within 16 hours. Traffic should not be allowed on the finished coating until firm (usually 24-36 hours). TUFFLEX Accelerators may be added to COLORCOAT AL-ESTER to allow for light traffic on decks within a matter of hours. Please refer to the Technical Bulletins on Accelerators or contact TUFFLEX for details.

6. MAINTENANCE

If a COLORCOAT AL-ESTER coated surface is damaged, it can be repaired by light sanding or by scrubbing with industrial soap and water, followed by a thorough rinse with water. Follow this with a solvent wipe with acetone or xylene and TUFFLEX 7113 penetrating cleaner. When the surface is dry, apply additional COLORCOAT AL-ESTER.

7. AVAILABILITY

COLORCOAT AL-ESTER is supplied through Building Material Distributors. Prices vary with quantity and packaging. For the name of your nearest distributor, please contact the factory.

These products are designed and manufactured to be installed by professional installers familiar with surface preparation and application procedures. All others should consult a professional installer. Those who choose to install these products without professional assistance do so at their own risk.

8. PRECAUTIONS

Before using this product read the container precautionary label and the SDS sheets carefully. Exposure to urethanes or petroleum solvents may cause allergic skin or respiratory reactions. Do not get into eyes, onto skin, or clothing. THIS PRODUCT IS FOR PROFESSIONAL USE ONLY.

9. TECHNICAL SERVICE

Technical Assistance is available by contacting:

TUFFLEX POLYMERS
10880 Poplar Avenue
Fontana, California 92337
Phone: (909) 349-2016
Fax: (909) 823-6309

10. LIMITED WARRANTY

TUFFLEX Polymers (TUFFLEX) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any TUFFLEX materials prove to contain manufacturing defects that substantially affect their performance, TUFFLEX will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by TUFFLEX with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. TUFFLEX specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of TUFFLEX's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the TUFFLEX material in question.

11. TECHNICAL DATA

COLORCOAT AL-ESTER ALIPHATIC TOP COAT

<i>PROPERTY</i>	<i>COLORCOAT AL-ESTER (100 VOC)</i>	<i>COLORCOAT AL-ESTER (250 VOC)</i>	<i>TEST METHOD</i>
Polymer Composition	Aliphatic Polyester Polyurethane	Aliphatic Polyester Polyurethane	-----
Solids Content (By Weight)	82 +/- 2%	78 +/- 2%	ASTM D-1353
VOC Content	100 grams/liter	250 grams/liter	Calculated
Weight Per Gallon	10.4 ± 0.2 lbs.	9.7 ± 0.2 lbs.	ASTM D-1475
Viscosity @ 77°F	25-35 poise	25-35 poise	Brookfield
Cure Time @77°F, 50% R.H. @ 10 mils	24 hours	24 hours	
Flash Point	Above 116°F	Above 116°F	ASTM D-93
Tensile Strength	3300 ± 300 psi	3300 ± 300 psi	ASTM D-412
Ultimate Elongation	200 ± 50%	200 ± 50%	ASTM D-412
Hardness, Shore A	90 ± 5	90 ± 5	ASTM D-2240
Adhesion to Base Coat	30 pli	30 pli	-----
Water Vapor Permeability	0.1 perms	0.1 perms	ASTM E-96
Abrasion Resistance, Inch Loss	Less than .002	Less than .002	C-502 Tabor Abrasion, 1000 Rev, 1000 Gm. Weight, CS-17 Wheel
Water Absorption	Less than 1 %	Less than 1 %	ASTM D-543
Tear Strength	350 ± 50 lb./in.	350 ± 50 lb./in.	ASTM D-1004
Chemical Resistance (Commonly encountered acids, salts, and oils)	Excellent	Excellent	ASTM D-2299
Weathering Resistance	No Chalking @ 2000 hours	No Chalking @ 2000 hours	ASTM G-23
Service Temperature Range	-30 to + 180°F	-30 to + 180°F	-----
Thermal Shock	No loss of adhesion	No loss of adhesion	Alternate Heat/Cold Cycle

COLORCOAT AL-ESTER (10)