

ELASTA-TUFF SYSTEM #566 - VEH

VEHICULAR, TRAFFIC BEARING, WATERPROOFING SYSTEM

1. GENERAL

1.1 Scope: This specification covers the installation of a proven durable, liquid applied, abrasion resistant Polyurethane waterproofing system suitable for surfaces subject to the demanding exposure of vehicular traffic. It is a monolithic system, designed to seal the concrete slabs from deicing salts and moisture penetration during freeze-thaw cycling and high temperature, high humidity thermal cycling. This vehicular traffic coating system incorporates excellent adhesion, impact resistance and abrasion resistance, while exhibiting superior chemical resistance.

1.2 Work Included: Install waterproofing consisting of caulking and flashing for joints, TUFF-POXY Epoxy Primer, ELASTA-TUFF 5000 Base Membrane, ELASTA-TUFF 6000-AR-HS Intermediate Membrane and ELASTA-TUFF 6000-AL-HS Aliphatic, Weather-Resistant Top Coat. Apply in accordance with these specifications and latest general instructions supplied by TUFFLEX and FLEXSTONE COATINGS.

1.3 Work Not Included: Work under this section shall not include finishing and corrective work in connection with the surfaces which are to receive the liquid-applied coating system. Nor does it include furnishing and installation of metal flashing, drains, vents, ducts, curbs or any other penetration through the deck.

1.4 CONDITION OF CONCRETE SURFACES:

1.41 The concrete surfaces shall be of sound structural grade (4,000 psi compressive strength recommended), of adequate design and thickness for vehicular traffic, and shall have a steel troweled followed by a fine broom finish, free of fins, ridges, voids or air entrained holes.

1.42 Concrete shall be cured by water curing method or water-based pure sodium silicate. Curing compounds or curing agents of any type shall not be used unless they have prior approval from FLEXSTONE or TUFFLEX.

1.43 Concrete shall be cured at least 28 days and ideally should be sloped for proper drainage as per project plans.

1.44 Saw-cut control joints and/or expansion joints shall have been properly installed at strategic points throughout the field of the deck to control cracking caused by deflection and shrinkage.

1.45 Any required crickets or drains should be installed at the time the main deck is poured (i.e. monolithic).

1.46 Voids, rock pockets and excessively rough surfaces shall be repaired with epoxy grout or ground to match the unrepaired areas.

1.47 When metal decking is used as the concrete form, it shall be of the "ventilating type".

1.48 All concrete decks poured over precast "T's", planks or slabs, shall have control joints placed directly over all corresponding joints or openings in the precast units.

1.5 JOB CONDITIONS:

1.51 Before any waterproofing work is started the waterproofing applicator shall thoroughly examine all surfaces for any deficiencies. Should any deficiencies exist, the architect, owner, or general contractor shall be notified in writing or by email and application shall not begin until corrections are made.

1.52 Do not proceed with application of materials when deck temperature is less than 40°F or if precipitation is imminent.

1.53 Warn personnel against breathing of vapors and contact of material with skin or eyes. In confined areas, workmen shall wear the approved respiratory protective gear and protective clothing.

1.54 All gas flames and electrical apparatus shall be shut down prior to the start of and during coating application and curing.

1.55 Protect plants, vegetation, and animals which might be adversely affected by the coating operation.

2. QUALIFICATIONS

2.1 Professional Applicator:

2.11 Shall be experienced in successfully applying the same or similar materials and shall be approved as a Qualified Tufflex and Flexstone Coatings Applicator.

2.12 Shall be financially responsible and be ready and able to submit the required project warranty.

2.13 Shall submit to the general contractor and the building owner the required certificates of insurance.

2.2 Sample Submittals: *If required*, submit samples not less than 3" X 4" in size, showing the approximate applied thickness, texture and color. Also include the manufacturer's application-specification sheet and a list of materials to be used.

3. MATERIALS

The materials shall be delivered to the job site in the original sealed containers bearing the product name, color, manufacturer's lot number. All products listed are to be supplied by TUFFLEX & FLEXSTONE Coatings.

3.1 Caulking Compound: Shall be a one-component urethane or polyurethane compound. FLEXSTONE supplies approved urethane sausages and sausage guns. TUFF-Base (WCU) is also acceptable for repairing/filling cracks or leveling problem areas.

3.2 Flashing Reinforcement: Shall be non-staining woven reinforcing fabric, or as recommended by TUFFLEX or FLEXSTONE.

3.3 Primer: Shall be TUFF-POXY #3 (Low VOC) primer-sealer.

3.4 Base Membrane: Shall be ELASTA-TUFF 5000 single-component, high adhesion, moisture cured, elastomeric polyurethane membrane and shall meet or exceed the following typical properties:

ELASTA-TUFF 5000 Base Coat		
PROPERTY	TYPICAL VALUE	TEST METHOD
Composition	Aromatic Urethane	
Weight Solids	85± 2%	
VOC Content	Less than 200 gm/l	
Hardness, Shore A	65 ± 5	ASTM D-2240
Tensile Strength	900 ± 100 psi	ASTM D-412
Ultimate Elongation	550 ± 100%	ASTM D-412
Tear Resistance	150 ± 25 lb./in.	ASTM D-1004
Weather Resistance	Slight Chalking @ 500 Hrs	ASTM D-822
Adhesion to Primed Concrete	30 pli	ASTM D-903
Low Temp Flexibility	-30°F	

3.5 Aggregate Coating: Shall be ELASTA-TUFF 6000-AR-HS high tensile strength, abrasion resistant elastomeric polyurethane and shall meet or exceed the following typical properties:

ELASTA-TUFF 6000-AR-HS Top Coat		
PROPERTY	TYPICAL VALUE	TEST METHOD
Composition	Aromatic Urethane	
Weight Solids	78 ± 2%	
VOC Content	Less than 250 gm/l	
Hardness, Shore A	80 ± 5	ASTM D-2240
Tensile Strength	3300 ± 300 psi	ASTM D-412
Ultimate Elongation	250 ± 50%	ASTM D-412
Tear Resistance	300 ± 50 lb./in.	ASTM D-1004
Weather Resistance	No Chalking @ 50 hours	ASTM D-822
Adhesion to Base Coat	30 pli	ASTM D-903