



# INSTALLATION SPECIFICATION DATA

## "STANDARD" VEHICULAR TRAFFIC DECKS

### I. SCOPE:

This specification covers information for materials, labor recommendation and equipment necessary for the preparation and installation of the TUFFLEX "Standard Outdoor" Vehicular Traffic Waterproofing System for use onto typical vehicular traffic decks found on parking structures, ramps, ferries etc. It also outlines traffic bearing waterproofing procedures which comply with industry standards. This vehicular traffic deck coating system should be installed by a contractor authorized by Tufflex Polymers.

### II. MATERIALS:

All materials to be installed shall be manufactured by and purchased from Tufflex Polymers or from an authorized TUFFLEX distributor. The following is a list of items needed for the Vehicular Deck Overlay Installation.

**Primer:** Several of the TUFFLEX Primers are acceptable for this installation. Refer to the appropriate TUFFLEX PRIMER TECHNICAL BULLETIN for further information. TUFF-POXY Primer #3 or TUFF-POXY Primer #2 are the recommended primers.

**Joint Tape:** 3" to 6" polyester reinforcing fabric should be used for joints and transitions.

**Base Membrane:** TUFFLEX Standard Base Membrane and Tufflex Solvent Free "SOFT" Detail Membrane. *\*Note: Refer to the TECHNICAL BULLETIN on these materials for further information.*

**Base Membrane Filler:** The mixed TUFFLEX may have sand or rubber granules added in order to thicken the material for areas of heavy sloping, coving and detailing purposes. (TUFFLEX Resin Binder Concentrate is just that - a concentrate. When the 20% catalyzing water is added it becomes the Base Membrane Mixture (BMM). The addition of sand or rubber also further increases the product versatility.) Refer to the TUFFLEX Specifications "CRACK FILLING AND CAULKING MATERIALS" and "SAND SLURRY SPECIFICATION AND APPLICATION GUIDE" for further information.

**Surface Texture:** Many surface texture options are available to broadcast into the TUFFLEX Membrane Waterproofing System after the Base Membrane Mixture (BMM) has been applied. Refer to the TUFFLEX Advisory "SURFACE TEXTURES ON TUFFLEX MEMBRANES" for a full explanation of the many options available. The end use customer must make the final choice as determined by their need for traction enhancement safety concerns and surface wear & tear protection. In areas identified as needing extra heavy surface protection, such as ramps, tight turning radiuses and such, refer to the TUFFLEX ADVISORY "BACKROLLING - Why, When & How" for further information on addressing these identified areas. Especially note the section titled "HINT: Applying the second coat first" for an explanation of how to detail these identified areas in order to build up additional layers of Colorcoat and texture surface protection in these heavy wear areas.

The basic texture surface for the Vehicular Traffic Deck Specification sometimes includes the rubber granule texturing and always includes the rounded flint shot silica aggregate backrolled into the topcoat. The combination of rubber and flint shot aggregate texture makes for an excellent wear surface and will not break down and cause pin holes as is common with porous and angular sand textured systems.

**Surface Topcoat:** Several TUFFLEX Colorcoat Topcoats are available in order to provide a wear surface over the TUFFLEX Base Membrane. Also refer to the TUFFLEX TECHNICAL DATA SHEET for the specific Topcoat which was selected.

### III. PREPARATION:

All surfaces shall be supplied, clean, and free from structural defects prior to coating application. All flashing details must be properly prepared and ready for membrane application. The Traffic Bearing Surface must be structurally sound and meet local engineering codes.

**Substrate:** New concrete should be cured a minimum of twenty-eight (28) days by water curing or with pure sodium silicate based curing compounds only. Concrete shall be visibly dry and pass twenty-four (24) hours ASTM D-4263 moisture test (4 mil or 102 microns polyethylene mat test) with no condensation prior to the application of TUFFLEX Material. Concrete shall have a minimum of 4000 psi (281 kg/cm<sup>2</sup>) compressive strength. All surfaces should be cleaned and prepared by shotblasting and must be free from structural defects prior to coating application.

### IV. INSTALLATION:

#### A. Primer Application:

- 1. Primer:** Using the TUFF-POXY Primer selected, prime the concrete surface at the rate of 300-350 sq. ft. per gallon, depending on surface porosity and finish. Allow the primer to dry a minimum of 3 hours and a maximum of 16 hours prior to application of Base Membrane Mixture.
- 2. Depressions and Irregularities:** Fill all voids, depressions and irregularities with a TUFFLEX BMM mixture that has been thickened with sand or fine rubber granules to a "stay put" consistency.
- 3. Joints, Cracks and Transition:** Polyester fabric tape may be set into the TUFFLEX SOFT BMM. The tape should be pulled tight to the substrate so it is free of air, blisters or wrinkles for a smooth transition. Pull the tape and material tight to the deck for a smooth transition. Do not leave a "bump" that will show through the membrane when it is applied. Center tape over the subject area.
- 4. Metal:** All metal flashing must be rough sanded, then wiped clean and dry and pre-conditioned with a zinc chromate or zinc-rich corrosion inhibiting primer. Then overcoat with the TUFF-POXY primer applied at a rate of 400 sq. ft. per gallon. Wait until primer has set, apply polyester reinforcing tape as indicated above.

#### B. Base Membrane Application:

- 1. Detail all flashings, transition edges and turn ups and cracks with a thickened TUFFLEX SOFT BMM mixture.** Feather to a smooth demarcation.
- 2. Apply a uniform coating of TUFFLEX Base Membrane Mixture (BMM) over the deck surface at the minimum rate of 2 1/2 gallons of mixed TUFFLEX BMM per 100 sq. ft. (40 mils) carrying this mixture over the detailed areas. (5 gallons of TUFFLEX RBC plus 1 gallon [20%] of water equals 6 gallons of Base Membrane Material - BMM.)** Note 40 mils is a minimum membrane thickness. Depending on the condition of the substrate and especially in those cases where the substrate is rough, degraded or pitted due to heavy shotblasting, additional BMM mil thickness will be required. (Please check with your local TUFFLEX Representative or TUFFLEX Technical Service Department for further information.)
- 3. If Rubber Granulés are desired, (optional) allow the TUFFLEX Base Membrane, to stand until the membrane has slightly jelled. Then broadcast the rubber granules over the entire surface until refusal.**
- 4. When the membrane will accept foot traffic, remove all of the optional rubber texture with a broom or vacuum and save for reuse. Make any repairs necessary to imperfections or defects. Let repairs cure.**

#### C. Application Of Wear Surface Topcoat:

- 1. Identify the heavy wear areas (such as ramps and turn areas) that are to receive extra attention as described in the Surface Texture Section of this Specification. Deal with those areas first and then proceed on to the next step. This way, the additional layer of Colorcoat top coat and aggregate will add additional protection to those high wear areas. This additional**