E-TUFF® 80 HEAVY DUTY BASE & INTERMEDIATE COAT PARKING AND WALKING DECK MEMBRANE

Single Component, Water Catalyzed, Solvent and TDI Free Base Membrane for Metal, Wood, Concrete Surfaces

1.01 DESCRIPTION
E-Tuff® 80 is a single component, water catalyzed, fast setting, rapid curing, solvent free, TDI free, deck coating based on patented technology. This high performance, high solids polyurea/urethane polymer produces a waterproof-base membrane that can be applied for heavy-duty wearing surface applications on prepared interior or exterior, concrete, plywood, and metal surfaces. Due to its fast gel time, E-Tuff® 80 is suitable for applications in temperatures as low as 20°F (-6.7 °C). It may be applied in single or multiple applications.

E-Tuff® 80 is also relatively insensitive to moisture and temperature allowing applications in various temperatures and humidity. Please use the correct product grade that complies with VOC regulations as per federal, state, county and city regulations/codes at the place of installation of product.

1.02 FEATURES
- Excellent Low Temperature Flexibility
- Excellent Weathering
- Fast Curing
- Good Thermal Stability
- Green Concrete
- Highly flexible over extreme temperatures
- Labor Saving
- May Be Applied At Any Thickness In One Pass
- Meets the Criteria of ASTM C-836 & E-96
- Low Odor
- Non Gassing
- Recoatable
- Resists Dirt
- Seamless
- User Friendly

1.03 TYPICAL USES
- Basketball Courts
- Block And Masonry
- Exterior And Interior Waterproofing Traffic Areas
- Flooring
- Heavy-Duty Vehicular Parking Decks
- Mechanical Room
- Metal Roofs
- Portico Waterproofing
- Pre-Cast Joints
- Resurfacing
- Sloping And Coving
- Sun Rooms
- Walkways, Patio’s And Stairways

1.04 COLOR
White or Grey. Custom colors are available upon request with minimum order quantity.

1.05 PACKAGING
1 gallon (3.78 liters) can
5 gallon (18.9 liters) pail

1.06 SURFACE PREPARATION
Concrete surfaces require a medium sandpaper finish equal to or greater than an ICRI CSP #3. Surface preparation may be completed by shotblasting or the use of Poly-Tuff Profile and Etch Cleaner. Peel and adhesion tests are recommended. Install a 100-200 sqft (9.30-18.58 sqm) mockup of the system to be installed and approve for aesthetics, color, texture, actual coverage rates and functionality before proceeding.

1.07 MIXING
Before application, premix E-Tuff® 80 using a mechanical mixer (Jiffy mixer) at slow speed or if mixing by hand mix at least for 5 minutes or until a homogeneous mixture and color is attained. Use care not to allow the entrapment of air into the mixture.

TECHNICAL DATA (Based on draw down films)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pot Life 75°F (24°C) @ 50% RH</td>
<td>15-20 minutes</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.08 ± 0.1</td>
</tr>
<tr>
<td>Tack Free Time</td>
<td>3-4 hours</td>
</tr>
<tr>
<td>Hardness ASTM D-2240 Shore A</td>
<td>80 ± 3</td>
</tr>
<tr>
<td>Tensile Strength, ASTM D-412</td>
<td>1500 ± 300 psi (10.34 ± 0.7 MPa)</td>
</tr>
<tr>
<td>Elongation, ASTM D-412</td>
<td>400 ± 100%</td>
</tr>
<tr>
<td>Tear, ASTM D-624</td>
<td>175± 25pli (30.7 ± 4 kN/m)</td>
</tr>
<tr>
<td>Viscosity, at 75°F (24°C)</td>
<td>2500-3500 cps</td>
</tr>
<tr>
<td>Total Solids by Weight, ASTM D-2369</td>
<td>93 ± 2%</td>
</tr>
<tr>
<td>Total Solids by Volume, ASTM D-2697</td>
<td>90 ±2%</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>0.64 lbs/gal (77 gm/liter)</td>
</tr>
</tbody>
</table>

Poly-Tuff Systems International Corp.
8550 West Desert Inn Road | Suite 102-451
Las Vegas, NV 89117 | T: (866) 977-8833 | F: (800) 804-0182

Poly-Tuff Systems International Corp.
8550 West Desert Inn Road | Suite 102-451
Las Vegas, NV 89117 | T: (866) 977-8833 | F: (800) 804-0182
Optional: Add catalyst (one vial per 5 gallon or 18.9 liter pail) and mix thoroughly until a homogeneous mixture and color is attained. Catalyst will reduce cure time for cold temperature applications. Depending upon environmental conditions up to 3 vial of catalyst per 5 gallons (18.9 liters) may be used.

Mix pre-accelerated E-Tuff® 80 with water at a volume ratio of 4:1 (4 gallons or 15.4 liters of E-Tuff® 80 with 1 gallon or 3.78 liter of water). For 5 gallons or 18.9 liters of E-Tuff® 80 add 1.25 gallon or 4.725 liters of water. Mix the material thoroughly until water is completely combined with E-Tuff® 80. Water catalyzed material is referred as mixed or water catalyzed material.

1.08 JOINTS, CRACKS, AND FLASHING

Joints and Cracks over 1/16 inch (0.16 cm) shall be sealed flushed with E-101 and taped before applying basecoat (See Super Seal Tape Technical Data Sheet). Prime all concrete and metal joints, cracks, and flashings with recommended PSI Primer. Note: Primer is optional over new plywood.

Bridge the joints and cracks with flashing with 2.75-4” (7-10.14 cm) polyester or polyurethane foam tape pushing the tape into the 20 mil (508 microns) prestrip of the base coat. Where polyester tape is used, firmly embed the tape into the prestrip of basecoat with a trowel. Applying a thin coat of E-Tuff® 80 paste over the reinforced tape and smooth onto adjacent surface.

The use of Flexi-Flashing is acceptable in most applications for replacing metal flashing except at door pockets.

APPLICATION

2.01 APPLICATION BASICS

For best results use a squeegee or notched trowel. Airless sprayer or phenolic resin core roller may be used but extra care should be taken not to trap air which may result in bubbles.

Spread E-Tuff® 80 mixture evenly over the entire deck. Application should not be stopped part way across an area. Each application should be done in one complete step. A continuous application will ensure a smooth and level coat with no lines or streaks to disfigure the deck coating.

When E-Tuff® 80 mixed material begins to gel, approximately 15 minutes after placement, broadcast 14-30 mesh (0.595-1.41 mm) rubber granules into the wet membrane to refusal. Normal usage is 20 lbs of rubber granules p/100 sqft (0.98 kg/sqm).

When broadcasting silica sand, allow membrane to thicken to a firm and sticky surface (approximately 30-45 min) when the sand will adhere but not sink into the base coat. The aggregate should be dry, washed, and rounded silica in the, 12-20, 16-30 or 20-40 mesh size (0.841-1.68 mm; 0.595-1.19 mm; 0.420-0.841 mm) and a 6.5 Mohs scale minimum hardness as required by customer specifications or as specified in the System Specifications.

The time needed for thickening to a firm sticky condition is dependent on atmospheric environments especially temperature and humidity. Allow coating to cure 2-4 hours before proceeding to subsequent coats. E-Tuff® 80 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil (25.4 microns) thickness is one gallon per 1440 sqft (134 sqm). Refer to individual Systems Description under System Specifications section of the Poly-Tuff Systems International (PSI) catalog or website for specific coverage rates.

2.02 COVERAGE RATES

Coverage rates and cure times will vary depending on temperature, relative humidity, surface roughness and porosity, aggregate selection and embedment, and application technique. Coverage rates provided are optimal and are not guaranteed.

2.03 CURING

E-Tuff® 80 typically skins over within 45 minutes and cures throughly in 4 to 7 hours depending upon temperature, humidity and thickness. Lower temperatures and humidity prolong cure time. Higher temperatures accelerate cure time.

2.04 EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally-safe solvent, as permitted under local regulations, immediately after use.

2.05 SHELF LIFE AND STORAGE

E-Tuff® 80 has a shelf life of 12 months from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

2.06 LIMITATIONS

- E-Tuff® 80 should be used only as a base membrane. The components of E-Tuff® 80 are not UV stable and are not designed to withstand direct wear/abrasion without aggregate and topcoat.
- Ensure that the substrate is properly prepared prior to application. Surfaces to be coated with E-Tuff® 80 must be dry, clean, free of foreign matter, and primed with recommended PSI Primer. Primer is optional over new plywood.
- PSI recommends that an aggregate of washed, dry, rounded, crystal silica sand,16-30 mesh (0.595-1.19 mm), with 6.5 Mohs minimum hardness or EPDM rubber granules 14-30 mesh (0.595-1.41 mm) size be used to aid in slip resistance. Applicator should determine mesh size based on job requirements. Whenever rubber aggregates are used, two coats of topcoat are required to sufficiently provide a wearing surface.
- Any remaining material must be tightly sealed to protect it against curing in its container. Containers that have been opened must be used within 1 or 2 weeks since E-Tuff® 80 is a moisture reactive material that begins to cure when exposed to air.
- PSI does not recommend that E-Tuff® 80 be diluted with solvents.
- For complete information associated with the application of E-Tuff® 80, refer to individual System Specifications and Guidelines.

The following conditions must not be coated with PSI deck coating systems or products:

1) On grade or below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, suspended pool, swimming pool decks, or areas where hydrostatic pressure is or may be present, without the use of Enviro-Grip® 404FC primer. PSI Deck Coating is not recommended over magnesite, gypsum lightweight and where chained or studded tires may be used.
2) Concrete must exhibit 3000 psi minimum strength. An ICRI CSP 2-3 surface or greater is required for concrete surfaces to be coated.

3) New concrete must be cured for 28 days unless otherwise approved by PSI in writing. New surfaces to be coated must be trowel finished in compliance with the American Concrete Institute (except that hand troweling is not required), followed by a fine hair brooming, left free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function. Light broom finished concrete should be power-washed before coating application.

4) Concrete cleaning (see General and Safety Guidelines). Surface preparation may be completed by shotblasting or the use of Poly-Tuff Profile and Etch (PE) cleaner. Peel and adhesion tests are recommended.

**WARNING:** This product contains isocyanates.