



## PT-7070 OBW SYSTEM

High Build, Cold Applied, Liquid Applied, Below Grade I.R.M.A. Roofing System

### 1.01 DESCRIPTION

PT-7070 OBW System is a high build, seamless, 140 mil (3556 microns) system consisting of two 70 mils coats (1778 microns) of T-Shield™ GC-WC-100 (liquid applied, asphalt modified, urethane membrane) sandwiched between a zero perm fabric, Osmosis Barrier Fabric (OBF). The OBF is an osmosis barrier in which aluminum foil is laminated between two layers of fabric which act as a reinforcement and provides near absolute ZERO vapor barrier for prevention of osmosis in conditions where standing or ponding water may occur in horizontal concrete decks. The waterproofing membrane system consists of a fast curing, single component, water catalyzed, liquid applied, coal-tar free, polyurea IRMA roofing and waterproofing membrane. The system is fully adhered and reinforced and may be applied at any field thickness from 30-90+ mils (762-2286 microns) in one or more application horizontally or vertically. The product is utilized for between slab waterproofing or flat sandwich plaza deck and flat IRMA roof applications for both plywood and concrete.

PT-7070 OBW System provides an outstanding barrier that reduces water vapor transmission to practically an absolute zero. Aluminum foil has been laminated between 2 layers of polyester film, thus preventing the ingress of vapor moisture, salt spray, corrosion, oxidization, chemical reactions, oils, greases, and other causticity damage. Applicable to polyurethane, polyisocyanurate, phenolic, cellular glass, nitrile rubber, polystyrene, urethane as secondary vapor barrier. It can also be used as primary vapor barrier under a protective jacketing for cryogenic, low temperature, cold storage, petrochemical projects, and specialty industries including liquefied natural gas (LNG), liquefied petroleum gas (LPG), ammonia, ethylene, butane, propane, methanol, LN2, etc. Specify for replacement for mastics, rubber sheeting, glass cloth, and other interior and exterior jacketing materials.

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

- Applied at any required thickness
- Economical
- Fast Curing
- Fills Ponds and Low areas
- Highly Flexible over extreme temperatures
- Large Flat Plaza Decks
- LEED Certified
- Low Odor
- Meets SCAQMD VOC Requirements
- Resistant to Bacterial Growth
- Supports Ponding Water

### 1.03 TYPICAL USES

- Between Slabs
- Green Roof Waterproofing
- I.R.M.A Roofing
- Planters
- Plaza Decks With Possible Ponding Water.
- Terrazzo and Tile Floors
- Tunnels
- Under Malls, Plazas and Promenade Decks.
- Under-Slab Waterproofing

### 1.04 PRODUCTS & PACKAGING

#### Enviro-Grip™ EP#1

3-gallon kit: One 3.5-gallon pail containing net 2 gallons (7.57 liters) of Side-A blue liquid and 1 gallon (3.78 liters) can of Side-B yellow liquid

15-gallon kit: Two 5 gallon (18.9 liters) pails of Side-A blue liquid and 5 gallon (18.9 liters) pail of Side-B yellow liquid

#### Enviro-Grip™ EP#2/EP#2SC

2-quart kit: 1 quart (0.946 liter) can of Side-A black liquid and 1 quart (0.946 liter) can of Side-B white liquid

2-gallon kit: 1 gallon (3.78 liter) can of Side-A black liquid and 1 gallon (3.78 liter) can of Side-B white liquid

10-gallon kit: 5 gallon (18.9 liter) pail of Side-A black liquid and 5 gallon (18.9 liter) pail of Side-B white liquid

#### T-Shield™ GC-WC-100

5 gallon (18.9 liter) pail

55-gallon drum, net fill 50 gallons (189 liters)

#### Osmosis Barrier Fabric (OBF)

40" x 600" (12.19 m x 182.28 m)

### 1.05 PRODUCT INSTRUCTIONS

For complete information associated with the application of the PT-7070 OBW System, refer to the General & Safety Guidelines of the Poly-Tuff Systems International (PSI) catalog which describes the surface preparation, job conditions, finishing details and other necessary information.

All products/materials to be used on this system should be purchased from PSI or its distributors or approved by PSI. For details on individual product, please refer to Technical Data Sheet.

For project specific recommendations, please contact PSI. Refer to Technical Data Sheets for products referred in the System Specifications.

## **APPLICATION**

### **2.01 SURFACE PREPARATION**

Check area of application to ensure that it conforms to the substrate requirements, as stated in the General Guidelines and Safety section. 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 P-Tuff™ PE Profile and Etch cleaner. Peel and adhesion tests are recommended.

Install a 100-200 sqft (9.30-18.58 sqm) mock up of the system to be installed and approve for aesthetics, color, texture, actual coverage rates and functionality before proceeding.

### **2.02 REPAIRS**

A. Follow priming instructions for concrete and after primer is thumbprint tacky, bridge the joints and cracks with 4" inch (10.54 cm), CI-95 Self-Adhesive Polyester Tape or Polyurethane Foam Tape. Do not allow Super-Seal™ Tape or CI-95 to become wet or exposed to heavy moisture before coating.

B. Super-Seal™ Tape must be hand applied with firm downward hand pressure over the entire width and length of the tape. Do not use rollers or brushes to apply tape. Or, reinforce the membrane with Tie-Tex 325 or 326 fabric. Flashings should be addressed on a per/project basis by details. Metal flashings may be replaced by Flexi-Flashing™ in some cases. Consult PSI

### **2.03 MIXING**

A. Mix T-Shield™ GC-WC-100 with one to two quarts of water per 5 gallons (18.9 liters) of T-Shield™ GC-WC-100. The T-Shield™ GC-WC-100 should be thoroughly mixed using a mechanical mixer at slow speed to ensure a homogeneous material. Take care not to allow entrapment of air into the material.

### **2.04 PRIMING**

A. Apply Enviro-Grip® EP#1 or EP#2 primer at approximately 100-300 sqft /gallon (0.14-0.41 liters/sqm) leaving no puddles of primer. Allow primer to become firm and thumbprint tacky (primer is tacky, but does not transfer onto the finger at touch) and apply the T-Shield™ GC-WC-100 at the specified thickness for warranty purposes. Within 2 hours of the initial application of the T-Shield™ GC-WC-100 apply the OBW Fabric in to the wet T-Shield™ WC100 and fully brooming it into place with a stiff bristle industrial broom.

B. All concrete surfaces should be clean and dry for a minimum of 48 hours and exhibit an ICRI CSP 2 - 3 Surface Preparation or the use of P-Tuff™ PE Profile and Etch . Grinding and/or scarifying the surface

is not acceptable unless etched with the P-Tuff™ PE Profile and Etch cleaner to create a proper surface profile.

## **2.05 COATINGS APPLICATION**

A. T-Shield™ GC-WC-100 shall be applied directly with a brush, squeegee, trowel or phenolic core roller. Apply T-Shield™ GC-WC-100 evenly over the primed. A 30 mil (762 mils) construction coat may be applied for temporary waterproofing in horizontal surfaces until the finish system is applied. However, due to the probability of damage more coating may be needed to create a smooth finish. Attention to proper slope to drain is essential for proper waterproofing.

B. Apply T-Shield™ GC-WC-100 approximately at 4 to 4 1/2 gallons/100 sqft or 22-25 sqft/gallon (2.21-2.42 liters/sqm) or 60-70 mils (1524-1778 microns). While coating is wet, embed the OBW (Osmosis Barrier Fabric) into the wet T-Shield™ GC-WC-100. Broom fabric into the 1st application of the T-Shield GC-WC-100 with a heavy medium to stiff bristle industrial broom. Apply an additional coat of T-Shield™ GC-WC-100 approximately at 4 to 4 1/2 gallons/100 sqft or 22-25 sqft/gallon (2.21-2.42 liters/sqm) or 60-70 mils (1524-1778 microns) over the felt face fabric. Do not apply coating over wet or damp felt facer. If the facer has become wet, allow facer to completely dry before coating. After 3-24 hours install protection or drainage board.

C. When vertical application is necessary, apply T-Shield™ GC-WC-100 Vertical Grade by roller, brush or trowel. Consult the T-Shield™ GC-WC-100 Technical Data Sheet for further application instructions. Applications of greater thickness are permissible but not generally required.

D. For extended warranty purposes, a mil total mil thickness of 140 mils (3356 microns) fully reinforced is required for 10 years, 160 mils (4064 microns) for 15 year warranties.

E. Coverage rates and cure times for the PT-70 OBW System 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.

## **2.06 CURING**

T-Shield™ GC-WC-100 is sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in thickness of application. T-Shield™ GC-WC-100 should be covered as soon as possible with fabric or drainage board.

## **2.07 PROTECTION**

PT-70 OBW System may be protected from damage with the use of the T-Shield™ PB, a single ply, protective mat or approved equal. T-Shield™ GC-WC-100 must be fully cured and tack free before applying protection board or other materials over the membrane.

## **2.08 JOB COMPLETION**

Equipment should be cleaned with a urethane grade, environmentally-

# SYSTEM SPECIFICATIONS

## SECTION 2.5.2

safe solvent, as permitted under local regulations, immediately after use.

Field visits by PSI personnel are for the purpose of making technical recommendations only and are not to supervise or provide quality control on the job site.

### 2.09 LIMITATIONS

- A continuous coating application should ensure a deck with no lines or streaks.
- Cannot withstand extended direct wear or abrasion.
- Containers that have been opened must be used as soon as possible.
- Not for use over hot rubberized asphalt without written consent of PolyTuff Systems, International. Not UV stable.
- PSI assumes no liability for substrate defects.
- Surfaces must be dry, clean and free of foreign matter.
- T-Shield™ GC-WC-100 should not be used over asphaltic surfaces without the use of Enviro-Grip® WB or 121 as a primer or as recommended by Poly-Tuff Systems, International prior to the specific application.
- The substrate must be structurally sound and sloped for proper drainage.
- Uncured materials are sensitive to heat and moisture.

Concrete:

- 1) Where hydrostatic pressure is or may be present, without the use of Enviro-Grip™ 405FC primer and asphalt surfaces, asphalt overlays without the express written consent of PSI.
- 2) Concrete must exhibit an ultimate 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 24 hours 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 shot blasting or the use of PSI's TuffEtch. Peel and adhesion tests are recommended.

**WARNING: The products in this system contain aromatic hydrocarbons, isocyanates and solvent.**

Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

#### LIMITED WARRANTY

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical and chemical properties. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PSI shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PSI shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PSI reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

#### DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PSI makes no claim that these tests or any other tests, accurately represent all environments.