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# STRETCH

## Section 07140 – Fluid Applied Waterproofing

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### MANUFACTURER'S GUIDE SPECIFICATION

#### PART 1 – GENERAL

##### 1.01 GENERAL:

Surface treatment for application on concrete and concrete masonry surfaces, especially basement wall exterior surfaces and other surfaces subjected to hydrostatic pressure. Poly Wall STRETCH is a surface barrier with excellent properties that retard or prevent water and water vapor transmission. Poly Wall STRETCH's chemical resistance to algae, bacteria and normal solvents or acids found in soils suggests other applications.

##### 1.02 RELATED SECTION

Concrete – Section 03300  
Masonry – Section 04500

##### 1.03 REFERENCE DOCUMENTS

Reference shall be to the following documents:

- A. Applicable Local Building Code.
- B. ACI 515.1R Guide to the Use of Waterproofing, Dampproofing, Protective and Decorative Barrier Systems for Concrete (Revised 1982).
- C. ACI 530.1/ASCE 6–92 American Concrete Institute Building Code Requirements for Masonry Structures, Specification for Masonry Structures and Related Commentary.
- D. ASTM Standards, as referred throughout this Guide Specification.
- E. ICC-ES AC29 Acceptance Criteria for Cold Liquid Applied Dampproofing and Waterproofing Materials.

##### 1.04 DESCRIPTION

The Surface Treatment: Provides barrier to ground water passage from soils through wall and has crack bridging ability. Treatment is a cold applied liquid. Treatment reduces problems associated with elastomeric membranes

such as conforming to the surface, poor adhesion, cold weather application limitations, fragile gel finish, and prolonged wall cure time prior to application. Chemically resistant to aggressive chemical solutions common in acid rain, metabolites, soils, fertilizers and treated water. The treatment is an elastomeric coating.

- A. Elastomeric coat: Poly Wall STRETCH. This coating is liquid when applied and has elastomeric properties. Poly Wall STRETCH is applied to the exterior wall surface from 6 inches below grade line to and across top of the footings. This layer has the ability to bridge small shrinkage cracks up to 1/16<sup>th</sup> inch. Color is gray.

##### 1.05 QUALITY ASSURANCE

- A. Manufacturer shall be a company specializing in surface treatments for concrete and concrete masonry for a period of 15 years.
- B. Contractor shall be a Professional Coating Contractor with 5 years or more experience.

##### 1.06 SUBMITTALS

- A. Submit Poly Wall data and Manufacturer's installation recommendations as required in Division 1 – Submittals.

##### 1.07 ENVIRONMENTAL REQUIREMENTS

- A. Poly Wall STRETCH shall be applied at temperatures in the range of –20°F to +110°F. Application of Poly Wall STRETCH components below ambient temperatures of –20°F are permitted, when well ventilated, heated work areas are provided.
- B. Application of Poly Wall STRETCH at temperatures in the range of 32°F to –10°F shall continue only after the surfaces are free of moisture or ice. Application of heat by torch or other heat sources shall



heat-dry the surface to a depth of 1/8 inch to 3/16 inch. Open flame shall not occur during application of STRETCH.

## 1.08 DELIVERY, STORAGE AND HAND-LING

- A. Delivery, storage and handling of Poly Wall STRETCH components shall be the responsibility of the Installer.
- B. Poly Wall STRETCH to be carefully stored according to the requirements of local authorities. Protect containers of product from water, sparks, flames, excessive heat and poor ventilation.
- C. When storing outside, store containers on shaded hard surface. Inside storage requires fire safety sprinkler system.
- D. Ignition source shall be prohibited from the workspace during the application period and from the immediate area where drums, trucks and spray equipment, if applicable, are on site.

## 1.09 WARRANTY

- A. Specifier's Note — See limited warranty.

## PART 2 – PRODUCTS

### 2.01 MANUFACTURER

Approved Manufacturer shall be:

Polyguard Products, Inc.  
Ennis, TX 75119  
(800) 846-3020  
[www.poly-wall.com](http://www.poly-wall.com)

### 2.02 MATERIAL

- A. Poly Wall STRETCH is a material consisting of proprietary elastomeric resins. Performance characteristics of Poly Wall STRETCH shall be as follows:
  - 1. Permeability: ASTM E96, method B - Typical results: .001 perm\*inch dry mils application.
  - 2. Water Hydrostatic Pressure Resistance: ASTM D 5385. Head of water, which samples withstood: 231 feet.
  - 3. Water Vapor Transmission: ASTM E 96 method B. 0.2700 grains/sq.ft/hr/in hg at 80 deg F.
  - 4. Low-Temperature Flexibility and Crack Bridging: ASTM C836 - No cracking.
  - 5. Tensile Strength: ASTM D412 – @ 7 days 190 PSI; @ 28 days 346 PSI.
  - 6. Adhesion to Substrate: ASTM D4541 – Average 100+ PSI.
  - 7. Metabolites: Analysis: chemical and visual – Typical performance does not degrade.

- 8. Chemical Resistance: Resistance to chemicals identified by Manufacturer. List available upon request.

## PART 3 – EXECUTION

### 3.01 EXAMINATION

- A. The decision to surface treat a surface shall be based on anticipated waterproofing needs and exposure conditions. On poured walls, a single application on the exterior surface will prevent or reduce water and moisture flow to the interior; where superior performance is required, an exterior application coupled with an interior application of a vapor-retarder: Poly Wall PRO 1000 is recommended.
- B. Prior to the application to poured concrete, concrete masonry, or concrete masonry basements, the acceptability of the surface to receive Poly Wall STRETCH shall be inspected by the Owner or Owner's Representative to establish that the surface(s) to be covered are in accordance with contracts of allied trades.
  - 1. By application of the Poly Wall STRETCH, the Poly Wall Manufacturer and the Qualified Installer do not accept the quality of the concrete as to individual components or the structural integrity of its components and their combination.
  - 2. Drain tile shall not be omitted, where required, because of the water resisting characteristics of Poly Wall STRETCH. Drain tile, as required by code, shall be inward and outward of the footing. A functioning drainage system is required such that hydrostatic pressure will not develop against the wall.
  - 3. Concrete walls shall be plane and true in both exposed and unexposed areas to receive application.
  - 4. Surface voids, honeycombed concrete surfaces and cracks will require corrective action by the responsible trade.
  - 5. Cast concrete surfaces shall be free of loose laitance and form release agents that will interfere with the adhesion. Excess form oils and waxes require surface preparation removal before application of coating.
  - 6. All surfaces to be coated must have medium surface pull-off strength of 175 psi prior to coating application. Concrete and CMU units to be constructed without integral moisture repellant, and CMU's shall be constructed with type M or type S mortar in accordance with ASTM C270. Joints are to be tooled and brushed. Minimum surface profile height: 4-5 mils.



### 3.02 PREPARATION

- A. Surfaces that have been in service (not new) will need to be cleaned with detergents, steam, or commercial degreasing products and acid contamination neutralized. Following cleaning, the surfaces should be rinsed with clean water and the cleanliness verified by a site inspector. Deteriorated concrete needs to be prepared by high-pressure washing, wet abrasive blasting, grinding, or dry abrasive blasting. All existing coatings, deteriorated concrete, and loose aggregate is to be removed until only sound gray concrete remains and has a minimum surface profile height of 4-5 mil and a surface pull-off strength values of 175 psi or greater and ph 8.0 or greater.
- B. Penetrations and tie holes must be filled and sealed. A non-shrinking non-water based patch is required. Ties, inside and out, must be knocked off and filled flush with either Poly Wall Hole Filler, Poly Wall Fiber Flash or non-shrinking Portland cement grout. Honeycombs must be filled with non-shrinking Portland cement.
- C. All surfaces to be coated shall be dry and free of dirt.
- D. Where above grade protection is desired or required: after STRETCH Waterproofing installation, install AirLok Flex VP w Proban (water based, vapor impermeable, elastomeric) barrier from top of wall down and 6 inches minimum over lap; or before STRETCH Waterproofing installation, install Pro 1000 (solvent based dampproofing) and continue below grade at least 6 inches such that when STRETCH is applied to grade STRETCH will overlap.

### 3.03 APPLICATION

- A. **Safety Considerations** – The work areas during application shall be well ventilated and restricted to only Qualified Installers. The following safety precautions shall apply:

- 1. Smoking and introduction of flames, sparks, electric arcs, etc., shall not be allowed.
- 2. Qualified Installers shall wear a NIOSH approved disposable organic vapor respirator. Medical approval shall be obtained for each person who will require a mask, individually fit.
- 3. A working fire extinguisher, type ABC, shall be available in all vehicles, near truck doors and in the work area.
- 4. All trucks, barrels and spray equipment shall be grounded.

#### B. Application – Inside Vapor Retarder (optional)

For superior performance in stopping moisture, it is recommended to install an interior vapor retarder: Poly Wall Pro 1000 with ProBan. The following specifications are prescribed for smooth dense surfaces. As surface porosity increases the coverage rate will decrease. The mil thicknesses and coverage rates are based on very good

quality concrete and very tight masonry units. It is the responsibility of the Qualified Installer to adjust the coverage rates to meet the varying conditions.

- 1. Poly Wall PRO 1000 surface treatment shall be applied using brush, roller or airless spray equipment. Poly Wall PRO 1000 should be applied between –20 to 110 degrees F ambient temperature. Coatings should be applied in one coat. Poly Wall PRO 1000 should be applied at a rate to insure even coverage. This rate will vary with the porosity of the surface. For best appearance and extra protection, PRO 1000 can be applied from the top of the foundation to footings. Apply Poly Wall PRO 1000 at a rate of 40 square feet per gallon (40 wet mils). (These application rates are inversely related to the texture and porosity of the surface to be treated. The more porous the less square feet of coverage.).
- 2. Use of an airless sprayer with a 4000 p.s.i. stall pressure and a .039" tip is recommended.
- 3. Spray applied Poly Wall PRO 1000 shall be applied thick enough to cover surface, then, if necessary, rolled with 1/2 inch to 3/4 inch nap paint roller to achieve a consistent coverage. After rolling, spray reapplication and rolling shall continue until the desired mils wet thickness is obtained. Drying time is dictated by coating thickness, ambient temperature and air movement.
- 4. Xylene can be used for cleanup.
- 5. Application shall be considered complete after a visual inspection of the wet film establishes that the surface has been uniformly covered and free of voids, thin spots, and missed areas. Reapply material until complete coverage is accomplished.

#### C. Application – Pro 1000 - Option

On the above grade portion of exterior wall surface, when an impermeable barrier is desired and elastomeric properties are not desired or required, install Poly Wall Pro 1000 from top of wall to minimum of 6 inches below grade. Install at 40 wet mils (40 square feet per gallon), roll to even coating and allow drying. The thick coat of Pro 1000 does not mean that any less than the required thickness of STRETCH to be applied at the over lap.

#### D. Application – STRETCH

- 1. The elastomeric coat, Poly Wall STRETCH shall be applied using an airless sprayer, brush or roll. Poly Wall STRETCH is applied to the exterior wall surface. Typical application is from grade line to and across top of footings (code requirements dictate minimums). Coverage from top of wall down to footings is permissible when UV protective



requirements are followed. Poly Wall STRETCH can be applied between -20 to 110 degrees F ambient temperature. For ease of application, material temperature at time of application should be between 50 to 80 degrees F. When spray applied, Poly Wall STRETCH shall be applied in one coat. Poly Wall STRETCH should be applied at a rate of 40 square feet per gallon (40 wet mils). This rate will vary inversely with the texture and porosity of the surface. Due to porosity, some surfaces may require higher mil coverage's. When properly applied, Poly Wall STRETCH will dry to a continuous film averaging 16 mil thickness.

2. Use of an airless sprayer with a 4000 p.s.i. stall pressure and a .039" reversible tip is recommended.
3. Xylene can be used for cleanup.
4. Application shall be considered complete after a visual inspection of the dry film establishes that the surface has been uniformly covered and free of voids, thin spots, pin holes and missed areas. Reapply material until complete coverage is accomplished.
5. Owner needs to inspect the surface to make sure it is dry before back filling or applying protection board. Drying time is dictated by coating thickness, ambient temperature and air movement and ranges from 12 to 48 hours.

**E. Application– AirLok Flex VP with Proban–Option**

On the exterior wall surface, when a permeable barrier and elastomeric properties are desired or required, install Poly Wall AirLok Flex VP with Proban. Install from top of wall to minimum of 6 inches below grade overlapping the STRETCH Waterproofing barrier. Install at 40 wet mils (40 square feet per gallon), roll to even coating and allow drying. The thick coat of AirLok Flex VP with ProBan does not mean that any less than the required thickness of STRETCH to be applied at the over lap.

**F. Protection of Surface Treated Surfaces:**

1. For foundations deeper than 9 feet protection board is required. For foundations less than 9 feet deep no protection board is necessary. Protection board shall not be installed directly over recent application. Allow a minimum 3 to 7 days (weather temperature dependent) drying time before applying protection board. Fasten drainage/protection board with a Hilti type fastener at the top and bottom. Be sure to use drainage board manufacturer's recommended fasteners. Be certain that the fasteners are properly sized so as not to damage the sub-straight creating holes greater than that fastener shaft size.

2. Backfilling of concrete walls shall be completed without damaging the coating. For best results use a protection board. Avoid direct application of large amounts of ethyl benzene or aromatic hydrocarbon compounds common to some herbicides and insecticides on surface after application.
3. Poly Wall STRETCH will be adversely affected by prolonged or constant UV exposure. When Poly Wall STRETCH is installed above grade and exposed to UV it is recommended to provide UV protection by covering with 40 wet mils of AirLok Flex VP w Proban from top of exposed surface to 6 inches below grade.

**3.04 FIELD QUALITY CONTROL**

The wet thickness of surface treatment applied shall reflect both proper thickness and coverage. Thickness in the wet stage shall be established using a paint thickness gage. Coverage shall be established by calculating the square footage covered per gallon.

