

SECTION 07 10 00

COLD FLUID-APPLIED DAMPPROOFING (SYSTEM)

This guide specification has been prepared by Polyguard Products Inc., in printed and electronic media, as an aid to specifiers in preparing written construction documents for cold fluid-applied dampproofing membrane systems. Polyguard® PRO 1000 is a patented, cold-applied, non-elastomeric, non-breathable, thermoplastic membrane. It is designed for use in positive-side hydrostatic pressure applications. It dries to a tough flexible film that provides a barrier to water passage through a substrate and maintains protection over substrate shrinkage cracks that develop up to 1/16-inch.

Edit entire master document to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences may contain choices to be made regarding inclusion or exclusion of a particular item or statement. This section may include performance-, proprietary-, and/or descriptive-type specifications. Edit to avoid conflicting requirements. Editor notes to guide the specifier are included between lines of asterisks to assist in choices. Remove these editor notes before final printing of specification.

This guide specification is written around the Construction Specifications Institute (CSI) Section Format standards.

For specification assistance on specific product applications, please contact our offices above or any of our local product representatives throughout the country.

Polyguard Products Inc. reserves the right to modify these guide specifications at any time. Updates for this guide specification will be posted on the manufacturer's web site and/or in printed media as they occur. Manufacturer makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Application of cold fluid-applied dampproofing membrane system.
- C. Application of system accessory products.

1.02 RELATED SECTIONS

Specifier Notes: Edit the list of related sections as required for the project. List other sections dealing with work directly related to this section.

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 03 15 00 - Concrete Accessories.
- C. Section 04 05 00 - Common Work Results for Masonry.
- E. Section 07 21 00 - Thermal Insulation.
- F. Section 07 60 00 - Flashing and Sheet Metal.
- G. Section 07 92 00 - Joint Sealants.
- H. Section 33 46 00 - Subdrainage.

1.03 REFERENCES

- A. ASTM C 836 – Low-Temperature Flexibility and Crack Bridging.
- B. ASTM D 95 – Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation.
- C. ASTM D 4541 – Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers

- D. ASTM D 5385 – Standard Test Method for Hydrostatic Pressure Resistance of Waterproofing Membranes.
- E. ASTM E 96 (Method B) – Water Vapor Transmission of Materials.
- F. ASTM E 154 – Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, installation instructions, use limitations and recommendations. Include certification of data indicating VOC (Volatile Organic Compound) content of all components of dampproofing system.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Dampproofing Membrane System must be manufactured by a company with a minimum of ten (10) years of experience in the production and sales of dampproofing membrane materials.
- B. Applicator Qualifications: A firm having at least three (3) years of experience in applying these types of specified materials and specifically accepted in writing by the membrane system manufacturer.
- C. Materials: For each type of material required to complete the work of this section, provide primary materials which are the products of a single manufacturer.
- D. Pre-Application Conference: A pre-application conference shall be held to establish procedures and to review conditions, installation procedures and coordination with other related work. Meeting agenda shall include review of special details and flashing.
- E. Manufacturer's Representative: Arrange to have trained representative of the manufacturer on site periodically to review installation procedures.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Store materials in a clean, dry area in accordance with manufacturer's instructions.
- C. Store adhesives at temperatures of 40° F (4° C) and above to facilitate handling.
- D. Store membrane cartons on pallets.
- E. Do not store at temperatures above 90° F (32° C) for extended periods.
- F. Keep away from sparks and flames.
- G. Completely cover when stored outside. Protect from rain.
- H. Protect materials during handling and application to prevent damage or contamination.
- I. Avoid use of products which contain tars, solvents, pitches, polysulfide polymers, or PVC materials that may come into contact with dampproofing membrane system.

1.07 PROJECT CONDITIONS

- A. Work should be performed only when existing and forecasted weather conditions are within the limits established by the membrane manufacturer. Membrane should be applied in temperatures between –20°F to 120°F.
- B. Application at temperatures between –20°F and 32°F shall continue only after the surfaces are free of moisture or ice.

- C. Application of heat by torch or other heat sources shall heat-dry the surfaces to a depth of 1/8-inch to 3/16-inch.
- D. Keep flammable products away from spark or flame. Post “No Smoking” signs. Do not allow use of spark-producing equipment during application and until all vapors have dissipated.
- E. Maintain work area in a neat and workmanlike condition. Remove empty cartons and rubbish from the site daily.

1.08 WARRANTY

- A. Manufacturer warrants only that this product is free of defects, since many factors which affect the results obtained from this product are beyond our control; such as weather, workmanship, equipment utilized and prior condition of the substrate. We will replace, at no charge, proven defective product within twelve (12) months of purchase, provided it has been applied in accordance with our written directions for uses we recommended as suitable for this product. Proof of purchase must be provided. A five (5) year material or system warranty may be available upon request. Contact Polyguard Products, Inc. for further details.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Polyguard Products Inc. P.O. Box 755 Ennis, TX 75120-0755; Phone: (214) 515-5000
Email: info@polyguard.com

2.02 MATERIALS

- A. Polyguard® PRO 1000 VOC level required; [<600] dampproofing: single-component; non-elastomeric; non-breathable, thermoplastic membrane; liquid; cold-applied via spray, roller, or brush to concrete masonry (CMU) or poured concrete walls.

PHYSICAL PROPERTIES:

PHYSICAL PROPERTIES TABLE		
PROPERTY	TEST METHOD	TYPICAL VALUE
COLOR		Gray
LOW TEMPERATURE FLEXIBILITY	ASTM C 836	Pass
PULL ADHESION	ASTM D 4541	100+ PSI
VAPOR PERMEABILITY	ASTM E 96 (Method B)	0.45 Perms
RESISTANCE TO HYDROSTATIC HEAD	ASTM D 5385	100+ ft.
WATER ABSORPTION	ASTM D 95	< 1% weight
WATER PENETRATION and LEAKAGE THROUGH MASONRY	ASTM E 154	No Penetration or Leakage
CATEGORY 1 40 C.F.R.§59401 “WATERPROOFING SEALERS AND TREATMENTS”		<600 g/l

2.03 SYSTEM ACCESSORIES

- A. Detail Sealant: Polyguard® Detail Sealant PW™: A single-component, STPE, 100% solid moisture-cured, elastomeric sealant. It is an environmentally-friendly, non-isocyanate product that replaces silicone and urethane sealants. It is also a low VOC/HAPS free, cold-applied, self- adhesive, elastomeric sealant.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Surfaces to be treated must be sound, dry, clean and free of dirt, excess mortar, or other contaminants.
- B. Concrete and concrete masonry units (CMU) to be constructed without integral moisture repellent, and CMU shall be constructed with type-M or type-S mortar in accordance with ASTM C 270.
- C. Masonry substrate to have tooled mortar joints. Masonry wall must be unparted.

- D. Honeycombs must be filled with non-shrinking Portland cement grout, made smooth and allowed to dry. Ties, inside and out, must be knocked off and filled flush with non-shrinking Portland cement grout.
- E. Masonry and new concrete shall have been cured a minimum of three (3) days and must be dry at time of application.
- F. Design Professional to verify substrate and conditions are acceptable to commence work within this section.

3.02 SURFACE PREPARATION

- A. Surface must be clean and dry: free of mortar or gypsum smears; free of ice, frost or excess moisture.
- B. Poured concrete ties inside and out must be knocked-off and filled flush. Any remaining voids must be filled and brought flush.

3.03 APPLICATION

- A. Minor voids are to be filled and sealed with Polyguard® Detail Sealant PW™.
- B. Control joints can be filled prior to PRO 1000 coating with Polyguard® Detail Sealant PW™, made flush with substrate. Apply specified coat of Polyguard® PRO 1000 over joint filler, providing a continuous membrane across the joint.
- C. Apply evenly to substrate using airless spray equipment, brush, or roll; checking proper application thickness immediately (40 mils). For use of an airless sprayer, the stall pressure shall be a 4000 PSI, and the spray tip shall be a 0.036 to 0.039 –inch reversible tip.
- D. Apply Pro 1000 in one or more coats over poured concrete at a combined rate of 40 SF per gallon (40 wet mils). Coverage rate over CMU is dependent on the tightness of the surface profile.
- E. Membrane blistering can be avoided by applying Pro 1000 during a wall exposure in its daily cooling cycle. Applications on walls experiencing daily warming due to direct sunlight should be executed in 20-mil applications, allowing each coat to dry before applying the next coat.
- F. Inspect coated surfaces for complete and continuous coverage at the desired mil thickness. Correct deficiencies by cleaning the damage and applying additional material to specification.
- G. Protect Polyguard® PRO 1000 above-grade: protect from UV exposure by recoating exposed above grade areas every 5-7 years. For a successful painting overcoat, use a bonding additive equal to the properties of Wil-Bond Liquid Surface Preparation.
- H. Protect Polyguard® PRO 1000 below-grade: protect with Polyflow® 10 Vertical Drainage Mat, Polyflow® 10P Vertical Drainage Mat, Polyflow® 15 Vertical Drainage Mat, or Polyflow® 15P Vertical Drainage Mat . Drain these products to daylight or operational sump from a minimum of four (4) inches below the top of interior slab to six (6) inches below the top of grade. Securely adhere one of the listed products over the face of 3-day cured Pro 1000 with Quick Grip Adhesive.
- I. After passing inspection of the completed drainage/protection system, backfill using clean fill material. Place backfill materials to within two (2) feet of finish grade. Backfill the remaining area with native soils. Shape the grade to drain away from the structure.

END OF SECTION