

SECTION 07 13 26

SELF-ADHERING WATERPROOFING WITH TERMITE FOR ISOLATION JOINTS

This section includes editing notes to assist the user in editing the section to suit project requirements. These notes are included as hidden text, and can be revealed or hidden by one of the following methods:

Microsoft Word 2016, 2013, and 2010: Display the FILE tab on the ribbon, click OPTIONS, then select DISPLAY. Select or deselect HIDDEN TEXT.

Corel WordPerfect: From the pull-down menus select VIEW, then select or deselect the HIDDEN TEXT option.

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 termite barrier and waterproofing membrane systems.

Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences may contain a choice to be made regarding inclusion or exclusion of a particular item or statement. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements. Editor notes to guide specifiers are included between lines of asterisks to assist in choices to be made. Remove these 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 or any of our local product representatives throughout the country.

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PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Application of self-adhering termite and waterproofing isolation joint barrier
- C. 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.

1.03 REFERENCES

- A. ICC AC 380 – International Code Council - Acceptance Criteria for Termite Physical Barriers
- B. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
- C. ASTM D570 - Standard Test Method for Water Absorption of Plastics.
- D. ASTM E96 (Method B) - Standard Test Methods for Water Vapor Transmission of Materials.

- E. ASTM E154- Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
- F. ASTM F2130 - 01 Standard Test Method for Measuring Repellency, Retention, and Penetration of Liquid Pesticide Formulation Through Protective Clothing Materials
- G. ASTM D1970 – 01 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
- H. ASTM D1000 –10 Standard Test Methods for Pressure-Sensitive Adhesive-Coated Tapes Used for Electrical and Electronic Applications

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 waterproofing system.
- B. Samples: Submit representative samples of the following for approval:
 - 1. Isolation Joint Barrier and Accessories.
- C. Proof of long term termite resistance. Submit a copy of ICC ESR Evaluation Report showing compliance with ICC AC 380 – International Code Council - Acceptance Criteria for Termite Physical Barriers.
- D. Sustainable Design Submittals: LEED v4
 - 1.EA prerequisite and credit – Energy Performance
 - a. Indicate how this material can improve energy conservation
 - 2.MR credit - Regional Materials and Recycling content:
 - a. Indicate percentage of materials recycled pre-consumer
 - b. Indicate percentage of materials recycled post-consumer
 - c. Indicate percentage of materials sourced within 100 miles of the manufacturing facility
 - 3.MR credit – Building Product Disclosure and Optimization
 - a. Indicate whether the building product(s) have published a complete Health Product Declaration (HPD) with full disclosure of known hazards to at least 0.1% (1000 ppm) in compliance with the Health Product Declaration open Standard addressing all components of the system
 - 4.EA prerequisite and credit – Energy Performance
 - a. Indicate how this material can improve energy conservation.
 - 5.MR credit: Construction and Demolition Waste Management
 - a. Indicate what portion of the building product is recyclable in areas where there is a facility to recycle.
 - b. For each recyclable material listed in 5.a above, list its weight.
 - 6. EQ credit – Low Emitting Materials:
 - a. For each building product material used on the interior of the structure, and applied on site, list the VOC content and where the material is applied.
 - b. For each building product material used on the exterior of the structure, and applied on site, list the VOC content and where the material is applied.
 - 7. IN credit - Innovation – Interior Wellness and Comfort
 - a. Provide test results documenting ability of product to physically block termite access into structure, thus reducing the usage of pesticides.
 - b. Provide details of why the product can increase long term comfort or interior wellness of the building occupants.

- 8. IN credit – Innovation - Indoor Integrated Pest Management:
 - a. LEED v4 standards call out the implementation of IPM (Integrated Pest Management). Typical LEED wording in IPM guidelines is “Nonchemical pest preventive measures, either designed into the structure or implemented as part of pest management activities. Describe the area(s) of the building envelope where this building product will provide protection against entry of insects.
- 9. LEED v4 for Homes – SS credit - Nontoxic Pest Control - Pest Control Alternatives:
 - a. Provide documentation of the ability of product to physically block termite or other pest access into structure
- 10. LEED v4 for Homes – EA credit – Air Infiltration
 - a. Provide details of how the product will reduce air infiltration to the structure

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Barrier System must be manufactured by a company with a minimum of 10 years of experience in the production and sales of membrane waterproofing materials, as well as technical and sales personnel with backgrounds in entomology and/or pest control.
- B. Applicator Qualifications: A firm having at least 5 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. Representative(s) must be trained in pest control as well as waterproofing.

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 and barrier membrane at temperatures of 40°F (5°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 waterproofing 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 only be installed when temperature is 40°F (4.44°C) and rising. Consult manufacturer for information concerning cooler temperatures.
- B. Proceed with installation only when substrate construction and preparation work is complete. Ensure that subsoil is approved by architect or geotechnical firm.
- C. Warn personnel against breathing of vapors and contact with skin and eyes; wear appropriate protective clothing and respiratory equipment.
- D. Keep flammable products away from spark or flame. Post “No Smoking” signs. Do not allow spark producing equipment to be used 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. Provide a written 5 year material warranty from the manufacturer upon completion and acceptance of the installation.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Polyguard Products Inc. P.O. Box 755 Ennis, TX 75120-0755; Phone: 214-515-5000
Fax: 972-875-9425 Email: info@polyguardbarriers.com

2.02 SYSTEM MATERIALS

- A. High Strength Insect Barrier and Waterproofing: Shall be Polyguard TERM® Isolation Joint Barrier, a 0.5” composite barrier consisting of double-sided adhesive membrane, an integrated layer of termite barrier sealant, and an integrated stainless steel mesh screen with termite sized apertures.

PHYSICAL PROPERTIES OF BARRIER

Property	Test Method	English	Metric
Color	--	Black	Black
Barrier Thickness	ASTM D 1000 inch (mm)	0.5	12.7
Long Term Resistance to Termite Penetration	ICC AC 380 - Acceptance Criteria for Termite Physical Barriers	Furnish ICC ESR Evaluation showing compliance	Furnish ICC ESR Evaluation showing compliance
Elongation of Barrier Sealant – % Stretch Before Failure	ASTM D 412	> 500%	> 500%
Permeance to Moisture and Water Vapor	ASTM E 96-B perms	.05	.05
Water Absorption	ASTM D 570	0.1%	0.1%
Peel Adhesion	ASTM D 1000 lb/in width / (N/mm)	10.0	1.75
Low Temperature Flexibility	ASTM D 1970 180° bend over 1” mandrel at -20°F(-29°C)	No cracking or delamination	No cracking or delamination
Barrier Puncture Resistance	ASTM E 154 (Blunt Instrument) lb / (N)	150	546
Aperture Size of Encapsulated Stainless Steel Screen	ASTM D 1000 inch (mm)	0.018”	.457

2.03 SYSTEM ACCESSORIES

- A. Surface Roller Grade Adhesive or Sealant:
 1. Polyguard® 650 LT Liquid Adhesive: A rubber based adhesive in solvent solution formulated to provide excellent adhesion of Polyguard membranes to concrete surfaces. Designed for use on applications down to 25°F(-4°C).
 2. Polyguard® California Sealant: A rubber based sealant in solvent solution which is specifically formulated to provide excellent adhesion with the Polyguard Membranes.

The VOC (Volatile Organic Compound) content meets the South Coast Air Quality Management District regulations established under the February 1, 1991 version of Rule 1168 ©) (2) Adhesion and Sealant Applications. Polyguard California Sealant is classified as an Architectural Sealant Primer Porous; with VOC of 521 g/L. Current SCAQMD regulations for this type sealant primer are 775 g/L.

B. Sealant Barrier:

1. Polyguard TERM® Water Termite Sealant Barrier: A gunnable or trowelable sealant with termite barrier properties.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Normal weight structural concrete should be allowed to cure a minimum of 7 days. Minimum cure time for lightweight structural concrete is 14 days.
- B. Notify General Contractor if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.
- C. Examine surfaces to receive membrane. Concrete should be structurally sound, free of voids, spalls, loose aggregate, and sharp ridges. Remove any dust, dirt, debris or foreign materials such as wax, oil, grease, or form release materials containing these materials. Use repair materials which are acceptable to the membrane manufacturer.
- D. All form tie holes and bug holes must be repaired and filled flush with the surrounding surface.

3.02 SURFACE PREPARATION

- A. Protect adjacent surfaces not designated to receive waterproofing and termite barrier.
- B. Prepare surfaces to receive waterproofing and termite barrier in accordance with manufacturer's instructions.

3.03 APPLICATION

- A. Make sure the surface is clean, dust free, smooth, and dry.
- B. *Isolation Joint Barrier* is installed horizontally on the face of the existing slab. The top of the *Isolation Joint Barrier* should be adhered on the vertical side of the existing slab surface in the area where the new slab will be poured, extending just past where the concrete forming for the new slab will extend. See the *Isolation Joint Barrier* detail.
 1. After determining the required dimensions of the *Isolation Joint Barrier* cut pieces of barrier to length as needed,
 2. Prime the area of the vertical side of the existing slab with liquid adhesive where the isolation joint barrier will be installed.
 3. Apply isolation joint barrier to the vertical side of the existing slab 30-60 minutes after liquid adhesive has been applied.
 4. Roll the entire length of the barrier with a hard surface roller after installation. This will ensure 100% adhesion to the concrete surface.
 5. Terminate all top horizontal edges with sealant barrier as recommended by manufacturer.
- C. Leave the stainless steel wire folded back against the Isolation Joint Barrier until just before the new slab is placed. At that time fold the wire out horizontal at a 90 degree angle to the vertical side of the slab where it is installed.

END OF SECTION