SECTION 02282

TERMITE CONTROL AT ABOVE GRADE PLUMBING PENETRATIONS AND BATH TRAPS

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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 control using particle barriers. Polyguard® TERM™ Particle Barrier consists of selected quartz particles which have been sorted and sized to block prevalent termite species in the project area. When applied according to label instructions termites will be unable to penetrate through the barrier to reach cellulose based materials in the structure.

Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences may contain 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 the specifier 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 at 214.515.5000.

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 matter as they occur. Manufacturer makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.
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PART 1 GENERAL

1.01 SUMMARY:

A. Provide Polyguard TERM Barriers for termite control, as specified.

B. Limits of termite treatment are as follows:
1. Polyguard TERM Barrier product application will be treated at plumbing penetrations and bath traps.

1.02 RELATED SECTIONS

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Specifier Notes: Edit the list of related sections as required for the project. List other sections dealing with work directly related to this section.
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A. Section 06110 – Rough Carpentry

C. Section 10290 – Pest Control

D. Section 22100 – Plumbing Piping

1.03 REFERENCES

A. U.S. Environmental Protection Agency:
1. Pesticide Registration Manual – Chapter 13 - Devices

1.04 SUBMITTALS

A. Comply with Section 01 33 00 - Submittal Procedures.

B. Submit manufacturer's product data and application instructions.

C. Sustainable Design Submittals:

1. Submit invoices and documentation from manufacturer of the amounts of materials and content for products specified.

2. Submit invoices and documentation showing manufacturing locations and origins of materials for products manufactured and sourced within 500 miles of project location.

D. LEED Submittal:

1. LEED, MR Credit 5 – Regional Materials: Provide documentation for cost of materials or products that have been extracted, harvested, or recovered and also manufactured within 500 miles of project site.
   a. If only a portion of the materials or products is extracted, harvested, or recovered and manufactured locally, then only provide percentage by weight for credit value.

2. LEED, EQ Credit 5 – Indoor Chemical and Pollutant Source Control: Provide documentation of testing of ability to physically block access by termites into the structure, and provide details of long term successful use in areas of the U.S., thus reducing future usage of pesticides

3. LEED, ID Credit 1 - Innovation
   1.1 Provide documentation of testing supporting the environmental and health benefits obtained through the physical blocking of insects and other pests from entry to the structure, therefore reducing the need for application of pesticides over the life of the structure.

4. LEED-EB Credit 3.9 – Indoor Integrated Pest Management
   1.1 Provide documentation of testing of ability to physically block access by termites into the structure, and provide details of long term successful use in areas of the U.S., thus reducing future usage of pesticides

5. LEED for Homes Credit SS 5.e.ii – Pest Control Alternatives
   1.1 Provide documentation of testing of ability to physically block access by termites into the structure, and provide details of long term successful use in areas of the U.S., thus reducing future usage of pesticides

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Installer must be a pest control operator who is licensed by the jurisdiction where the material is being installed.

1.06 WARRANTY

A. Warranty against termites is provided by the installing pest control operator. Warranty is for one year starting at the date of installation of the product. Building owner and installing pest control operator may mutually extend the termite protection with a contract which calls for minimum annual termite inspection.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name, manufacturer, EPA Establishment Number, and instructions for installation.

B. Store materials in a dry area completely covered to protect from moisture.

1.08 ENVIRONMENTAL REQUIREMENTS

A. Particle Barrier Products and Screen Barrier Products should be kept dry

B. Membranes, sealants, and primers should be kept warm and dry.

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@polyguardproducts.com. EPA Establishment Number 89537-TX-001

2.02 MATERIALS

A. Polyguard® TERM Particle barrier consists of selected quartz particles which have been sorted and sized to block prevalent termite species in the project area.

PHYSICAL PROPERTIES

Typical Properties of TERM Particle Barrier	
Property	**Typical Results**
Fineness Module	3.83
Weighted Particle Size	1.72
Hardness – Mohrs Hardness Scale	> 6
Gradient Angularity *Mean gradient angularity*	2000 – 3000

B. Polyguard TERM Flashing Barrier consists of a strong, puncture resistant backing laminated to a layer of TERM Sealant Barrier.

Typical Properties of TERM Flashing Barrier		
Property	**Method**	**Typical Results**
Tensile Strength – Film Backing	ASTM D 882	6500 PSI
Tensile Strength – Barrier Composite	ASTM D 412 (modified die C)	325 PSI
Peel Adhesion	ASTM D 1000	10.0 lb./in. width

2.03 ACCESSORIES

A. TERM 018 Mesh Barrier is a marine grade stainless steel mesh with apertures small enough to block termites.
B. TERM Sealant Barrier is an adhesive and barrier sealant, used to seal gaps between plumbing and the nearby wire or concrete surface.
C. Polyguard 650 LT Liquid Adhesive and Polyguard Shur-Tac Liquid Adhesive are primers used to prepare the surface for application of flashing or sealant. Its purpose is to promote adhesion.

Physical Properties			
Property	**Method**	**English**	***Metric***
TERM 018 Mesh Barrier			
Metal – type and grade	-	Stainless steel – Marine grade 316	Stainless steel – Marine grade 316
Aperture size of mesh opening	ASTM E 11 (maximum)	0.018”	*0.46mm*
Polyguard 343 Spray Adhesive			
Appearance when sprayed	Visual	Light blue lace	*Light blue lace*
TERM Sealant Barrier			
Long Term Testing against Termite Penetration	Texas A&M 4 Sites over 5 years vs controls	100% effective	*100% effective*
Elongation of Barrier Sealant – Percent Stretch Before Failure	ASTM D 412	>500%	*>500%*

PART 3 EXECUTION

3.01 MANUFACTURER’S INSTRUCTIONS AND PRODUCT LABEL

A. Polyguard TERM Particle Barrier is to be installed only by a pest management professional who is:

i. Licensed to install pest control products within the jurisdiction where the project is located.
ii. Trained by Polyguard Products in the proper installation of the TERM Particle Barrier.

B. Compliance: Comply with requirements as listed on the Polyguard TERM Particle Barrier U.S. EPA label, guide specification, and product data sheet.

3.02 INSTALLATION OF BATH TRAP BARRIER TREATMENT (executed after completion of rough plumbing)

A. Remove all wood form material from the walls of the bath trap

B. If the bath trap opening is less than 4” deep, remove sufficient earth to obtain 4” depth.

C. Prepare vertical wall surface of the bath trap by cleaning off and mud, dirt, or residual concrete. Clean the wall.

D. Clean and wire brush the piping for better adhesion of barrier sealant to be applied in the last step.

E. Fill the bath trap with TERM Particle Barrier to the level of the top of the slab. There should be a minimum of 4” thickness of particles.

F. Cut the TERM 018 Mesh Barrier to size so that it extends completely over the bath trap opening and 2” beyond onto the horizontal concrete surface on each side of the mesh.

G. Stir and apply with roller or brush Polyguard 650 LT Liquid Adhesive (if outside) or Polyguard 343 Spray Adhesive (if inside or in a contained area). Material should be brushed to extend 4” from each edge of the bath trap cavity. Allow to cure until tacky (usually at least 30 minutes for 650 LT Liquid Adhesive / or 30 seconds for Polyguard 343 Spray Adhesive).

H. Cut an “X” shaped opening in the wire mesh where the pipe penetration is to come through. This opening should be placed so that the wire mesh maintains the 2” overlap onto the concrete perimeter.

I. Install the wire mesh over the pipe, extending onto the perimeter of the bath trap.

J. Cut four strips of TERMFLASH04. These strips will be used to seal the wire mesh to the horizontal perimeter of the bath trap. The length of each strip should be 2” longer than the side of the wire mesh which that strip is to seal.

K. When the adhesive/primer is tacky, place the wire mesh over the bath trap. Install the mesh over the penetration pipe and extend the wire mesh over the horizontal perimeter of the slab.

L. Now seal the wire mesh to the slab with the TERMFLASH04 by peeling away the paper release liner, exposing the adhesive, and installing the flashing 2” onto the wire mesh, and 2” onto the concrete perimeter outside of the mesh. The flashing should extend 1” past each end of the wire mesh being sealed. Roll the flashing, applying pressure so that good adhesion is created between the concrete and flashing, and between the flashing and the wire mesh. When finished, there should be no gaps anywhere around the perimeter.

M. Apply TERM Sealant Barrier with caulking gun or trowel to seal all gaps where the pipe comes through the wire mesh. Any gaps should be covered with a minimum 3/8” coating of sealant barrier.

3.03 INSTALLATION OF SLAB PENETRATION BARRIER TREATMENT

A. . Top of slab must be clean, smooth, and dry and must be clear of excess concrete.

B. Cut out sill plate to make a rectangular opening with minimum clearance of 1” between the penetrations and the front, back, and sides of the sill plate opening.

C. Prepare the pipe penetration by sanding its surface. Wipe clean.

D. Apply TERM Sealant Barrier completely around all penetrations. There should be a ½" thickness of sealant at every interface of the pipe and the horizontal concrete. There should be no gaps, openings, or crevices anywhere around the penetration.

END OF SECTION

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