GUIDE SPECIFICATION

polyguard

SECTION 031521

TERMITE AND PEST BARRIERS FOR SLAB PENETRATIONS AND BLOCKOUTS

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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 TRM Bath Trap Kit. Polyguard® TRM Bath Trap Kit is a combination barrier which blocks entry of any pest through the bath trap opening

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 a choice 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 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.

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PART 1 GENERAL

1.01 SECTION INCLUDES

A. Termite control applied to slab blockouts or bath traps
B. All pest barrier applied to slab blockouts or bath traps.
C. Termite control applied to slab penetrations.

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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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1.02 RELATED SECTIONS

A. Division 01: Administrative, procedural, and temporary work requirements.

B. Division 31: Pest Control

1.03 REFERENCES

A. International Code Council (ICC):
   1. AC 380 Acceptance Criteria for Termite Physical Barriers – Evaluation Report demonstrating five-year multi-site field trial against Formosan termites, with zero failures, plus other criteria.

B. ASTM International (ASTM):
   1. C29/C29M - Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate.
   2. C33/C33M - Standard Specification for Concrete Aggregates.
   3. C136/C136M - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
   4. D146/D146M - Standard Test Methods for Sampling and Testing Bitumen-Saturated Felts and Woven Fabrics for Roofing and Waterproofing.
   5. D412 - Standard Specification for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension.
   6. D451 - 17 Standard Test Method for Sieve Analysis of Granular Mineral Surfacing For Asphalt Roofing Products
   7. E96/E96M - Standard Test Method for Water Vapor Transmission of Materials.
   8. ASTM E11 – Standard Specification for Woven Wire Test Sieve Cloth and Test Sieves
   9. F2130 - Standard Test Method for Measuring Repellency, Retention, and Penetration of Liquid Pesticide Formulation Through Protective Clothing Materials.

1.04 SUBMITTALS

A. Submittals for Review:
   1. Product Data: Manufacturer's product description and application instructions

B. Product Data:
   1. Manufacturer’s product data, installation instructions, use limitations and recommendations. Include certification of data indicating VOC (Volatile Organic Compound) content of all components of barrier system.
   2. Proof of long-term termite resistance. Submit a copy of ICC ESR Evaluation Report showing compliance with AC 380 – International Code Council - Acceptance Criteria for Termite Physical Barriers demonstrating five-year multi-site-controlled field trial against Formosan termites with zero failures, plus other criteria.
   3. Preparation instructions and recommendations.
   4. Storage and handling requirements and recommendations.
   5. Typical installation methods.

C. Sustainable Design Submittals: LEED v4.
   1. EA perquisite 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 percent (1000 ppm) in compliance with the Health Product Declaration Open Standard addressing all components of the system,
   4. EA perquisite and credit – Energy Performance:
      a. Indicate how this material can improve energy conservation.
   5. MR credit: Construction and Demolition Waste Management:
      b. Indicate what portion of the building product is recyclable in areas where there is facility to recycle.
      c. For each recyclable material listed in 5.a above, list its weight.
   6. EQ credit – Low Emitting Materials:
      d. 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.
      e. 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:
      f. Provide test results documenting the ability of product to physically block termite access into a structure, thus reducing the usage of pesticides.
      g. 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:
      h. 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:
      i. 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:
      j. Provide details of how the building product will reduce air infiltration to the structure.

1.05 QUALITY ASSURANCE

A. Installer should be trained by the manufacturer in bath trap and penetration termite barrier application.

B. Comply with requirements listed on EPA label, guide specification, and product data sheet.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Protect products from weather, sparks, flames, excessive heat, cold, and lack of ventilation.

B. Store products on pallets, covered to prevent water damage.

1.07 PROJECT CONDITIONS

A. Light and space should be adequate for the installer to see clearly.

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 MANUFACTURERS

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

B. Substitutions: [Under provisions of Division 01.] [Not permitted.]

2.02 SYSTEM MATERIALS

A. Particle Barrier: (for TRM Bath Trap Kit)
   1. Product: TRM Particle Barrier.
   2. Description: Selected quartz particles sorted and sized to block prevalent termite species in Project area.
   3. Physical properties:
      a. Particle size: Minimum 85% of sieve size 8–14 tested to ASTM D451-17
      b. Fineness module: 3.83, tested to ASTM C136/C136M, Table 1.
      c. Weighted particle size: 1.72, tested with AIMS Software 2D.
      d. Hardness: Minimum 6 on Moh's hardness scale.
      e. Mean gradient angularity: 2000 to 3000, tested to ASTM C29/C29M and ASTM C33/C33M.

B. Termite TRM Sealant Barrier (for penetrations)
   1. Product: TRM Sealant.
   2. Description: A waterproofing sealant which additionally acts as a termite barrier
   3. Physical properties:
      a. Complies with ICC AC 380, Acceptance Criteria for Termite Physical Barriers.
      b. Permeance to Moisture and Water Vapor: 0.035 grains/ft2/hr/in HGF tested to ASTM E-96 B.
      c. Pesticide repellency (Chlorodane, fipronil, permethrin): 0% penetration; Tested to ASTM F 2130.
      d. Low Temperature Flexibility; no cracking -25 deg. F; Tested to ASTM D 146

C. Termite Screen Barrier: (for all pest barrier)
   1. Product: TRM Micromesh
   2. Material: Stainless Steel – Marine Grade 316
   3. Aperture size of mesh opening: < 0,02"

   Note: *This aperture size is the one which has been proven to exclude Coptotermes formosanus subterranean Termites and is the size used in the TRM All Pest Bath Trap Barrier. Also used in TRM Weep and Vent.*

2.03 ACCESORIES

A. Liquid Adhesives:
   1. Polyguard® 650 WB Liquid Adhesive: A water-based, rubber-based adhesive which is specifically formulated to provide excellent adhesion.

   2. 343 Construction Adhesive: A fast tack, fast grab, low soak-in adhesive. It was especially formulated to bond polyethylene to itself, concrete block, wood, and many other hard-to-bond surfaces. Developed for the floor covering industry as a well-rounded, general-purpose adhesive for carpet and pads. It is tinted blue so the user can readily see where it has been applied. It may also be used to bond paper, cardboard, fabric, urethane foam, foil, metal, wood, and most plastics to themselves and a variety of other substrates. It may be used either for a permanent or temporary bond.

PART 3 EXECUTION

3.01 INSTALLATION - BATH TRAP PARTICLE BARRIER TREATMENT

A. Install in accordance with manufacturer's instructions.

B. Install after completion of rough plumbing.

C. Remove all wood form material from walls of bath trap.

D. If bath trap opening is less than 4 inches deep, remove sufficient earth to obtain 4-inch depth.

E. Prepare vertical wall surface of bath trap; remove mud, dirt, and residual concrete. Clean wall surfaces.

F. Clean and wire brush piping.

G. Fill bath trap with particle barrier to level of top of slab, minimum 4-inch thickness.

3.03 INSTALLATION – ALL PEST BATH TRAP

A. If TRM Particle Barrier (optional) is being Installed, installation (3.01) should be complete.

B. Install in accordance with manufacturer's instructions.

C. Ensure that concrete is clean, smooth, and dry.

D. Pre-cut stainless steel screen to be 4" wider than the diameter of the bath trap. Mark the perimeter

E. Pre-cut a hole in the section of wire screen cut in 3.2.D. The hole should be the same size as the plumbing penetration in the bath trap, and in the same location. Fit the screen over the plumbing penetration and mark the perimeter of the outside edges of the wire screen. Remove the wire screen.

F. Apply termite sealant over the perimeter marking made in step 3.2.E. Tool sealant to a minimum 1" width, extending to the outside of the perimeter markings.

G. Place the cut screen from step 3.2.E over the penetration and in line with the sealant applied in 3.2.F. Embed the screen into the sealant.

H. Apply termite sealant over the outside edges of the screen, and tool it so there is a complete seal around the perimeter of the screen.

I. Apply sealant barrier completely around penetration and tool at the screen interface with 3/4" face all the way around the penetration. Ensure that there are no gaps, openings, or crevices anywhere around penetration.

3.03 INSTALLATION – SLAB PENETRATION SEALANT BARRIER TREATMENT

A. Install in accordance with manufacturer's instructions.

B. Ensure that concrete is clean, smooth, dry, and free of excess concrete.

C. If a plastic sleeve has been placed over the penetration to prevent the metal from contact with the concrete poured around it, the protective sleeves should be cut off at the level of the top of the slab.

D. If sill has been installed, cut out sill plate to form rectangular opening with minimum 1-inch clearance between penetrations and front, back, and sides of sill opening.

E. Sand or wire brush pipe penetration, then wipe clean.

F. Prime pipe penetration and 2-inch radius on concrete with liquid adhesive or spray adhesive.

G. Apply TRM sealant barrier completely around penetrations with 3/4" face at interfaces of pipe and horizontal concrete. Ensure that there are no gaps, openings, or crevices anywhere around penetration.

H. Tool the TRM sealant all around the penetration with a small spatula.

END OF SECTION