

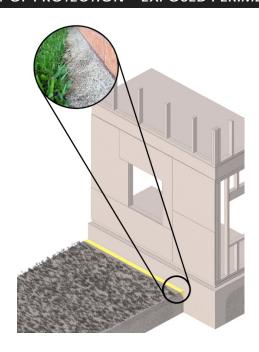
U. S. Patent No. 7,488,523 and 7,686,903 EPA Establishment No. 89537-TX-I

PRODUCT DATA SHEET

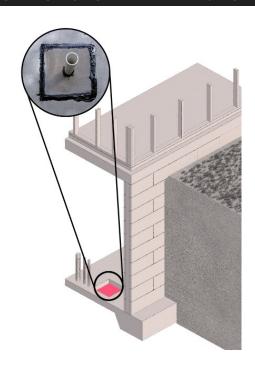


Stone Particle Termite Barrier

POINT OF PROTECTION – EXPOSED PERIMETERS



POINT OF PROTECTION - BATH TRAP/MOP SINK



DESCRIPTION

Polyguard *TERM Particle Barrier* can protect several points on the structure from termite entry. Two of these, shown in the above graphics, are the exposed concrete perimeter and bath traps.

The use of particle barriers to block termite entry has been known since the 1950's. The concept was field tested by Eberling, University of California at Berkeley, in 1956. Significant development work was done by Yamamoto, University of Hawaii in the 1980's.

Beginning in the 1980's, commercial application of stone particle barriers around the Pacific Rim.

The principle behind particle barriers is simple. According to the University of Hawaii:

"There are three basic requirements for a particulate barrier to be effective. First the granules must be small enough to pack well so there aren't any gaps the termites can squeeze through. At the same time, the granules must be big and heavy enough that

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the termites can't pick them up and move them. Third, the granules must be too hard for the termites to chew."

Polyguard's particle barrier consists of sub angular or angular quartz particulates with mesh sizes between 8 and 16. These sizes are shown to block both the Formosan and the native American species.

In the mainland U.S., extensive work on particle barriers has been done at the University of Florida and Texas A&M University.

ADVANTAGES

TERM Particle Barrier is a termite exclusion product. Installed and maintained by a licensed pest control professional around exposed concrete perimeters, or installed in a bath trap during construction, TERM Particle Barrier can reduce the quantity of termiticides needed during the life of the structure.

Polyguard has registered our barrier manufacturing facility with the EPA, who along with state agencies regulates pesticides. However, Polyguard barriers are classified by the EPA as "barriers" since they contain no toxic components.

Termites trying to enter a structure are unable to penetrate the *TERM Particle Barrier*. Also important, termites are unable to get <u>out</u> of a structure which they previously penetrated to obtain needed moisture.

The picture below shows termites who had exited a structure trying unsuccessfully to reach soil because they cannot move *TERM*. *Particles* aside.



You can see a video of the failed termite efforts at the 3.00minute mark of this demonstration video:

https://www.youtube.com/watch?v=-Kfdg6GtsFc&t=90s

REFERENCES

LEED: Here is a link to LEED v4 Documentation:

http://www.polyguardproducts.com/wp-content/uploads/2017/11/LEED-v4-Documentation-11-13-17.pdf

Several LEED credits might be earned by incorporating TERM Barrier System components into the structure.

- I. Increasingly LEED has incorporated Integrated Pest Management (IPM) into standards
 - LEED calls for IPM protocols in order to "minimize pest problems and exposure to pesticides".

 A key IPM element is "Nonchemical pest preventative measures.... designed into the structure...". TERM Barriers are nonchemical pest preventative measures.
- LEED rating systems for homes incorporate (SSC5)
 Non-toxic pest control". Components in the TERM
 Barrier System (membrane, sand barriers, and steel mesh) provide termite and pest control.
- 3. Incorporating *TERM* Sealant Barriers into the building envelope could provide an Innovation credit.
- 4. Finally, if the project site is former agriculture land with residual pesticide contamination, TERM Barriers may qualify under LEED IAQ Credit 5 Indoor Chemical and Pollutant Source Control (below grade toxin barrier) or SS3 Brownfield redevelopment. TERM Membrane Barrier has been tested and shown to resist penetration by chlordane, which was the most toxic pesticide in use in the 1960's and 1970's.

MAINTENANCE

The exposed perimeter application requires maintenance by a licensed Pest Control Professional. Perimeter particle barrier can be compromised many ways such as:

- a. Cats using the barrier as litter.
- b. Dogs digging up the barrier.
- c. Landscaping or construction activities can displace the barrier or cover it with dirt or mulch.
- d. Overgrowth by vegetation
- e. Debris accumulation.
- f. Children playing in the area.
- g. Flooding.

Any areas of the particle barrier found to be disrupted by the Pest Control Professional can be replenished with additional particles. Polyguard Products, Inc.

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For the bath trap/mop sink application, no maintenance should be required unless the installation has been damaged by construction or by some other activity.

SAFETY

All Polyguard products must be handled in a safe manner. TERM Particle Barrier itself, as a quartz stone product, does not contain any chemicals. However, if installing TERM All Pest Bath Trap Barrier, safety considerations include cutting hazard from the edges of stainless-steel mesh, as well as vapors from TERM Termite Sealant which

contains solvents. These deserve special attention to safety since vapors are both flammable and harmful if inhaled. Read both the product label and the Safety Data Sheet (SDS) before use.

SDS sheets:

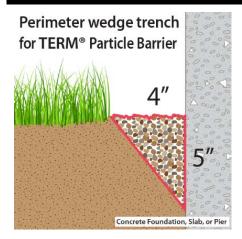
https://www.polyguardproducts.com/term/wp-content/uploads/2021/10/Term-Membranes-5-4-2020.pdf

HPD info:

https://www.polyguardproducts.com/term/library/term-hpds/

Call Polyguard at 214-515-5000 if you have questions.

INSTALLATION OF PARTICLE BARRIER TO PROTECT EXPOSED CONCRETE PERIMETER



Perimeter Particle Barrier is installed in a wedge-shaped trench.

Here is a link to an explanation video:

https://www.youtube.com/watch?v=jDN6Chv5YyU

- I. Dig a wedge-shaped trench, minimum 4" across the top, and 5" deep down the vertical concrete face. These distances are plus or minus I" due to the difficulty of digging exactly. The trench should be installed wherever vertical concrete surfaces of the structure are exposed around the entire perimeter.
- For most soils the TERM Trencher, a patent pending tool designed to create a trench of the correct depth and width, can be used, with a significant reduction of installation effort. Pictured below is a sequence showing the TERM Trencher creating a properly sized wedge.



Aim Trencher



Fire Trencher



Pull Trencher



Until step is level with soil

- 3. Clean the vertical face of the concrete so that the surface will be completely clean of mud and debris. A quick way to do this is with a hosing of the exposed area of the wall.
- 4. Fill the trench to the grade level with TERM Particle Barrier.

The perimeter particle barrier should be inspected (and repaired if needed) by a licensed pest management professional at least once a year, or more frequently if the PMP judges it to be necessary.

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INSTALLATION OF TERM BATH TRAP BARRIERS

TERM has two types of bath trap barriers:

First is the **TERM All Pest Bath Trap Barrier**. Like its name, the *All Pest Barrier* stops every type of pest, including snakes, fire ants, rodents, and moles.

TERM All Pest Bath Trap Barrier is suitable for new construction, but generally not in existing construction due to difficulties in access to trap.

The TERM Micromesh screen, with its tiny (0.02") apertures, can block the miniscule termites, and its strong stainless steel wire blocks everything else.

If you want "belt and suspenders" protection, you can install *TERM Particle Barrier* in the trap area before installing the screen.

Link to installation video:

https://www.youtube.com/watch?v=gg5DIhVY7uc



Next is the **TERM Particle Bath Trap Barrier**. The particle only bath trap is suitable for existing or new construction.

With particles only, termites are blocked. We haven't found any other pest which particles keep out. (We expected at least fire ants would be blocked, but they got through.)

Link to installation video:

https://www.youtube.com/watch?v=6cfmhWKsFQs



The TERM All Pest Bath Trap Barrier has a separate data sheet.

Melissa, could you insert here a link to the TERM All Pest Bath Trap Barrier data sheet

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LIMITATIONS

The TERM Foundation Water|Termite Barrier is just one piece of an extensive termite barrier system

When properly installed, (and in the case of TERM Particle Barrier Perimeter properly maintained), TERM Barrier products will physically block termites from entering the structure at the protected area. They will not block termites from entering at other points on the structure. Installing more TERM components blocks more termite entry points, but does not provide protection in areas the TERM Barriers are not applied

https://www.polyguardproducts.com/term/exclusion-101/how-pests-enter-structures/

If you look at the termite web link above, you will see some of the many places on a structure where termites can enter.

Polyguard's TERM Division has developed products and applications to exclude termites at most entry points, but not all of them. We have in development barriers for additional entry points. Each correctly installed TERM barrier component adds to the probability that the structure will have less termite problems and will require less chemical treatment to treat termite infestations.

Polyguard's TERM Barrier System products are part of an Integrated Pest Management (IPM) program and where local regulations require, may be used to supplement termiticide applications.

The information in this data sheet is designed to be helpful to the reader. It is based on experience and information considered to be accurate and true. Readers should carefully consider and verify the information with investigation of any areas with uncertainty. *Polyguard* does not warrant the results to be obtained. Additionally, please read everything here in conjunction with *Polyguard*'s conditions of sale, which are applicable to everything supplied by us. No statement here is intended for any use which would infringe any patent or copyright.

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