

TERM® Micromesh™ Barrier

Product Data Sheet

DESCRIPTION

TERM Micromesh Barriers are screens with openings sized to exclude small insects and pests from structures.

TERM Micromesh Barriers are best installed at time of construction as part of a building envelope pest exclusion system such as the TERM Barrier System. However, they can also be installed in accessible areas of existing structures.

MATERIALS AND PHYSICAL PROPERTIES

TERM Micromesh 06 - Good general grade for above ground vented areas not accessible to subterranean termites—meets IBC requirements for minimum screen opening NOTE: TERM Micromesh 06 is a special order size				
Property	English	Metric	Notes	
Aperture opening size ASTME11	0.062"	1.58mm	International Building Code requires that vented areas have screens with aperture size no smaller than 1/16" and no larger than 1/4". For maximum pest exclusion, the minimum aperture (1/16 th) is recommended. The minimum size will exclude almost every pest entering at the top of structures. But not in all areas (see Micromesh 04 below)	
Metal	Aluminum	Aluminum		
TERM Micromesh 04 - Smaller aperture size recommended for drywood termites. Aluminum mesh material makes the mesh workable in smaller spaces. NOTE: TERM Micromesh 04 is a special order size				
Property	English	Metric	Notes	
Aperture opening size ASTM E11	0.041"	1.041mm	In Florida and in other regions concerned about drywood termites, the 1/16" minimum screen size may not be small enough to block drywood termites. www.eXtension.org ¹ recommends 20 mesh screen (a tighter weave) to exclude drywood termites.	
Metal	Aluminum	Aluminum		
TERM Micromesh 02 - Sized to exclude subterranean termites and all larger pests				
Property	English	Metric	Notes	
Aperture opening size ASTM E11	0.018"	0.465mm	This aperture size is the one which has been proven to exclude <i>Coptotermes formosanus</i> subterranean termites and is the size used in the TERM All Pest Bath Trap Barrier. Also used in TERM Weep and Vent Barrier	
Metal	Stainless Steel Marine Grade 316	Stainless Steel Marine Grade 316		

Footnote 1 for drywood termite preventive techniques. In areas where *Incisitermes* termites are common, all soffit vents, doors, and windows of wood framed buildings should be screened with 20-mesh screen. A good coat of paint on exposed wood will provide some protection against termite entry.

Before painting, all cracks and crevices should be filled with putty or plastic wood. Pressure-treated wood is resistant to termite attack. Certain woods are naturally resistant to termites, including redwood heartwood, bald cypress, mahogany, and Spanish cedar; however, these woods can be more expensive and will become susceptible after several years when subjected to aging and weathering. Construction should be designed to eliminate moisture and water leaks. <http://www.extension.org/pages/20997/ipm-action-plan-for-drywood-termites#.VhgSKisqMIC>

ADVANTAGES

TERM Micromesh Barriers provide pest exclusion at points of the structure where openings are constructed for ventilation or drainage. Examples are ventilation screening, and screening at bath traps.

Current construction practices often provide inadequate pest exclusion. Bath traps, as an example, are typically built with an opening in the concrete which is treated with termiticide. This treatment loses effectiveness against termites after several years and is not designed to physically exclude termites, fire ants, rodents, snakes, and other pests gaining entry from below.

Attic ventilation screens are another example. As commonly installed, they include screens which can be effective at excluding larger insects and pests, but they will often admit smaller pests common to the project region.

TERM Micromesh Barriers are based on published knowledge and testing by entomologists. It is important to know what insects and pests are found in a project area, as well as where in a structure they most commonly enter, what size screening is needed to physically exclude them, and whether that pest to be excluded has the ability to force entry by such means as eating, chewing, or clawing through the barrier.

It is important to have the screens reviewed by mechanical engineers since the review of project specifications using criteria of pest exclusion may lead to specifications of smaller screen apertures than previously called for. Smaller screen openings will impact air flow. Adjustments of overall dimensions and/or equipment may be required.

It is also important to specify a high quality exclusion sealant such as *TERM Sealant Barrier* (at ground level up to 6' above ground level) or *Polyguard Exclusion Detail Sealant* (at heights >6' above ground level) to seal the edges of the screen. Without this precaution gaps may be left around the screen.

Additionally, it is necessary in attic and roofline areas to require caulking and sealing at all construction gaps. Typical attic and roof construction can leave many gaps and crevices for insect and pest entry. *Polyguard Exclusion Detail Sealant*, preferably applied to all gaps and crevices by a pest management professional prior to installation of attic insulation, is recommended.

REFERENCES

There are several ways in which LEED credits might be supported by incorporating TERM Barrier System components into the structure.

1. 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.

2. LEED rating systems for homes incorporate (SSC5) *Non-toxic pest control*”. Two components found in the *TERM Barrier System* are mentioned; they are steel mesh and sand barriers. Both are used as termite barriers.

TERM Sealant Barrier / membranes are also available to support credits which call for non-chemical pest barriers..

3. The incorporation of *TERM Sealant Barrier / membranes* into the building envelope may support 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.

INSTALLATION

Safety

All *Polyguard* products must be handled in a safe manner. Some sealants and primers contain solvents, and these require special attention to safety since vapors can be flammable or harmful if inhaled. Read both the product label and the Safety Data Sheet (SDS) before use. SDS sheets are at our website www.polyguardbarriers.com. Call Polyguard at 214.515.5000 if you have any questions.

A second safety consideration comes in handling wire screens. Screen edges contain numerous sharp points at the edges. Heavy duty work gloves should be worn, especially when working with stainless steel materials.

Preparatory work

Screens should be inspected before work to determine if any part of the screen face has been damaged in a manner that would cause enlargement of any openings. If found, this section of material should not be used.

TERM All Pest Bath Trap Screens

For *TERM All Pest Bath Trap Screen* installation, refer to Guide Spec www.link.com SECTION 02282 TERMITE AND PEST CONTROL AT ABOVE GRADE PLUMBING PENETRATIONS AND BATH TRAPS

TERM screens used in attic and roof areas

The screen mesh should be cut to about 1 ½” wider on each side of the opening, large enough to cover and bend around the wood framing members.

Prior to screen attachment, apply a ¼” bead of *Polyguard Exclusion Detail Sealant* without gaps or voids around the perimeter of the screen opening area.

Use a staple gun to attach the top of the screen to the wood framing above the opening and above the sealant. Space staples 1” apart. Where possible staple to the top horizontal surface of the framing member.

Staple the sides of the screen over vertical members, past the edge of the face of the framing and outside of the bead of sealant. Install on the outer face of the framing member where possible.

Staple the bottom of the screen, outside of the bead of sealant past the edge of the face and underneath the horizontal member.

Inspect the installation for insect size gaps. Apply sealant to those gaps as necessary.

LIMITATIONS

The screens described here should greatly improve exclusion of insects, but are unlikely to completely eliminate all pests. Rodents can chew through aluminum screening. Additionally, the construction world rarely considers the need for complete pest exclusion. Thus construction with seams, gaps, and crevices large enough to admit many small pests is a habit which may prove difficult to change. This is particularly true in residential construction of attic spaces.

Another possible limitation is conflict with building codes in the jurisdiction of the project. Problems should not occur, for example with use of *TERM Micromesh 2* on bath traps, since no screen requirements exist in that portion of construction.

Additionally, not many code problems should occur with the use of *TERM Micromesh 6* for ventilation points, as this size (1/16" is within the requirements of the International Building Code. If the project falls under code officials who do not use the IBC, check the specific code requirement.

Some concerns may arise with the use of *TERM Micromesh 4* which has a smaller aperture size (0.041") than the minimum allowable by the International Building Code.

Finally, a reminder to review screen specifications with mechanical engineers, as the reduced air flow of denser screens may necessitate revision of specifications for equipment or overall ventilation opening measurements.

PACKAGING INFORMATION

Product	Unit of Measure	FT2 / Roll
Micromesh 06	Roll	400
Micromesh 04	Roll	420
Micromesh 02	Roll	400