

## 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.

### 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

*TERM Flashing Barrier* qualifies under LEED IAQ Credit 5 - Indoor Chemical and Pollutant Source Control (below grade toxin barrier). SS3 - Brownfield redevelopment (can be used for pesticide contaminated sites), Can be considered for ID-1 - Innovation in design.

### 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](http://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](http://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..

Use a staple gun to attach the top of the screen to the wood framing above the vent. Space staples 1" apart. Where possible staple to the top horizontal surface of the framing member.

Apply a ¼" bead of *Polyguard Exclusion Detail Sealant* without gaps or voids around the perimeter of the screen opening area.

Staple the sides of the screen over vertical members, past the edge of the face of the framing and on the outside portion using vertical placement of staples.

Staple the bottom of the screen, 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 pests, but are unlikely to completely eliminate all pests. For one thing, 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.

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

Finally, a reminder to review screen specifications with mechanical engineers, as the reduced air flow may cause the need for revise specifications for equipment or overall ventilation opening measurements.

## PHYSICAL PROPERTIES

TERM Micromesh 6 - Good general grade for vented areas – meets IBC requirements for minimum screen opening			
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 <sup>th</sup> ) is recommended. The minimum size will exclude almost every pest entering at the top of structures. But not in all areas (see Micromesh 4 below)
Metal	Aluminum	Aluminum	
TERM Micromesh 4 - Smaller aperture size recommended for drywood termites			
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. <a href="http://www.eXtension.org">www.eXtension.org</a> <sup>1</sup> recommends 20 mesh screen (a tighter weave) to exclude drywoods.  Furthur development is underway to refine this sizing recommendation.
Metal	Aluminum	Aluminum	
TERM Micromesh 2 - 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 <i>TERM All Pest Bath Trap Barrier</i> . Also used in <i>TERM Weep and Vent Barrier</i>
Metal	Stainless Steel 316 - Marine	Stainless Steel 316 – Marine	

<sup>1</sup> **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>

## PACKAGING INFORMATION

Product	Unit of Measure	FT2 / Roll
Micromesh 6	Roll	400
Micromesh 4	Roll	420
Micromesh 2	Roll	400

X.LIT.Barriers.2015.TERM Micromesh Rev 10/15/15