



polyguard

TERM™ BARRIER

U. S. Patent No. 7,488,523 and 7,686,903

EPA Establishment No. 89537-TX-1

PRODUCT DATA SHEET



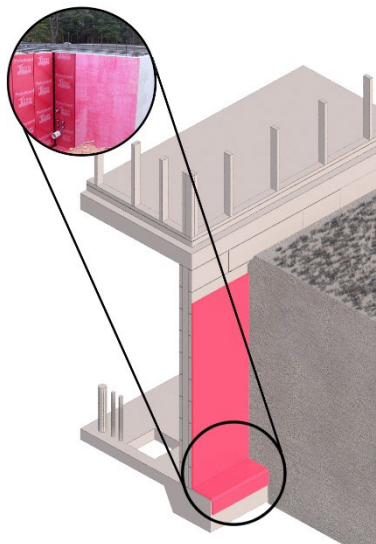
Foundation Water | Termite Barrier

For Concrete Foundations

	<p>international Code Council Termite Barrier System Report ESR-3632 Link to ICC ESR-3632</p>
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POINT OF PROTECTION

Protects foundation wall against termite and water entry



DESCRIPTION

Since 2002, hundreds of foundations across the United States have been protected with *TERM Foundation Water|Termite Barrier* to exclude both water and termites. *TERM Foundation Water|Termite Barrier* is a “peel and stick” barrier membrane used on concrete.

Polyguard waterproofing membranes (*without termite exclusion*) have been used worldwide on both commercial and residential construction since 1970. Research and testing of termite and pest exclusion, in cooperation with scientists at Texas A&M’s Urban and Structural Entomology Laboratory, began in 1999. Today *TERM Foundation Water|Termite Barrier* is a key part of a building envelope system with waterproofing and termite exclusion.

ADVANTAGES

TERM Foundation Water|Termite Barrier is the only waterproofing barrier evaluated by the ICC (*International Code Council*) against criteria of ICC AC 380 *Acceptance Criteria for Termite Physical Barrier Systems*. The AC 380 standard requires five years of testing at four field sites, with two major species vs. controls.

TERM Foundation Water|Termite Barrier is a non-structural barrier which when properly constructed as part of the building envelope, blocks both termites and water. The history of TERM’s development can be found at polyguardproducts.com/term/science-based/ *TERM Foundation Water|Termite Barrier* does not contain pesticides and is classified by the EPA and most state regulators as a physical barrier.

DESCRIPTION OF COMPONENTS

TERM Foundation Water|Termite Barrier is a strong, pliable, self-adhesive sheet made of a 4-mil high density polyethylene film bonded to 64 mils of barrier sealant.

TERM Foundation Water|Termite Barrier is formulated for low temperature application down to 30°F (-1°C) *TERM Foundation Water|Termite Barrier* is wound on a disposable treated release sheet which can be peeled away to expose the adhesive face. Standard roll size is 39.4” x 61’ (1.0m x 18.6m). In the near future, the standard roll size will change to 48” x 50’ (1.27m x 15.24m) as a result of raw material availability problems.

Polyguard 650 LT Liquid Adhesive is a fast drying, high tack rubber-based adhesive used on horizontal and vertical surfaces at temperatures above 30°F (-1°C).

Polyguard 650 Water-Base Liquid Adhesive is available where VOC concerns or limitations apply.

Polyguard 650 Mastic is asphalt mastic with a low solvent content, used to waterproof exposed edges of TERM Barrier Products.

Polyguard Detail Sealant is used with *Polyguard Barrier* to eliminate double-ply sheet on inside and outside corners or as a fillet on inside corners, *Polyguard Detail Sealant* ensures adhesion to concrete in difficult areas to seal. *Polyguard Detail sealant* is a solvent free, non-isocyanate adhesive sealant which is low VOC/HAPS free. It is formulated to be compatible with the *Polyguard TERM* barrier sealant.



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>

MAINTENANCE

No maintenance should be required unless the product has been damaged by construction or by some other activity.

SAFETY

All *Polyguard* products must be handled in a safe manner. Some products (some mastics or primers) contain solvents, and these deserve special attention to safety since their 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/term-hpd/>

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

The *650 LT Liquid Adhesive* is an industrial coating and would be harmful or fatal if swallowed. It is marked as red label from the standpoint of flash point.

Solvents could be irritating to the eyes, flush with water and contact physician. Avoid prolonged contact with skin and breathing of vapor or spray mist from liquid adhesive. *In confined areas, use adequate forced ventilation, fresh air masks, explosion-proof equipment, and clean clothing.*

INSTALLATION

Preparatory Work

Apply *TERM Barrier* only in fair weather, with temperatures above 30°F (-1°C) and rising.

Prior to starting work, check that all horizontal surfaces to be covered slope towards drainage. This material is not designed to be applied in areas where water will pond.

A smooth monolithic concrete surface is required. Broom surfaces are not recommended. Concrete should be dry, frost free and cured a minimum of seven days prior to application of *TERM Barriers* and *Liquid Adhesive*. Surface must be free of voids, spalled areas, sharp projections, loose aggregate, and form release agents. Concrete curing compounds containing oil, wax or pigments should not be used.

Form release agents must be self-dissipating which will not transfer to the barrier. Surface defects such as cracks, holes or cavities should be filled and finished flush with a Portland cement grout or concrete. Top surfaces of projecting ledges, below grade, except footings, should be finished to a bevel with Portland cement mortar. Concrete block walls or brick require a well adhered parge coat before application of barrier. Striking off joints flush with surface is also required.

Clean all surfaces to remove debris, dust and loose stones before application begins. **DO NOT** apply *Liquid Adhesive* or *Barrier* to frozen concrete.

Cracks of more than 1/16" (1.5 mm) on horizontal or vertical surfaces should be properly sealed in accordance with sealant manufacturer's instruction and pre-stripped with a 12" (305 mm) wide strip of *TERM Foundation Water/Termite Barrier* or *Detail Sealant*.

Cold joints, T-Joints and evident working cracks should be properly sealed with joint fillers, waterstop or sealant.

A 12" (305 mm) strip should be placed directly over and centered in the crack with the final applied barrier providing double strength at the area of movement.

All expansion joints, contraction joints and control joints should be properly sealed with joint fillers, waterstop or sealant. An inverted 8" (203 mm) strip, covered by a 12" (305 mm) strip, shall be placed directly over the joint, before the final barrier is placed.

Detail Sealant

Apply fillets formed by *Detail Sealant*, *Polyguard Liquid Membrane 95*, latex modified cement mortar or epoxy mortar at the base of foundation walls and footings. DO NOT use wood or fiber cant strips. Fillets of *Detail Sealant* should be applied to provide a 3/4" (19mm) face and extend 6" (152mm) vertically and horizontally, 90 mils (2.286 mm).

Cover all corners, joints and the base of the foundation wall and footing using a 12" (305 mm) wide strip of barrier centered along the axis. Press or roll firmly to achieve a complete seal. Apply a second ply of barrier. *Detail Sealant* may be substituted for the initial 12" (305 mm) wide barrier strip on inside corners.

Pretreat inside corners with *Detail Sealant* 6" (152 mm) in each direction from corners and form a fillet with *Detail Sealant* and apply a 12" (305 mm) strip of barrier centered on the corners.

Detail Sealant may be substituted for the initial layer of sheet barrier on drains and protrusions by applying a 90 mil (2.286 mm) thick layer from the drain or protrusion out and extending 6" (152 mm) underneath sheet barrier. Apply *Detail Sealant* vertically to be level with height of wearing surface. Flash drains and projections with a second ply of barrier for a distance of 6" (152 mm) from drain or projection. Seal all terminations with *650 Mastic*.

Priming

Priming can be done using *650 LT* or *650 WB Liquid Adhesive*. If using *650 LT Liquid Adhesive* be certain to review the safety information on our data sheets as well as the MSDS.

Stir *Liquid Adhesive* before use. Apply over the entire surface at a rate of 250-350 square feet, per gallon (6-8.5 m²/l). Primed surfaces must be re-primed if barrier is not applied to the *Liquid Adhesive* within the same working day. Use brush or lamb's wool roller for application. *650 WB Water Base Liquid Adhesive* can also be applied using airless or air assisted sprayer. *Liquid Adhesive* must be dry prior to application of barrier. *Liquid Adhesive* retains a tacky adhesive surface.

Primed surfaces should be immediately covered or protected to prevent contamination occurring on the *Liquid Adhesive*. Metal surfaces may require *Liquid Adhesive* to obtain bond of barrier to substrate. Field test to determine adhesion level. Surface must be free of contaminants

Sheet Barrier Application

TERM Foundation Water|Termite Barrier must be overlapped. Side laps must be a minimum of 2-1/2" (64 mm). Staggered end laps should be minimum 6" (152 mm).

When applying *TERM Foundation Water|Termite Barrier* on vertical walls, a determined effort must be made to assure complete adhesion of barrier to the primed surface. Hand roll overlap seams with a wall type narrow roller. Use heavy hand pressure while smoothing out the barrier surface, as it is applied.

On horizontal surfaces, apply barrier from low to high pitch for maximum drainage. Use linoleum roller or water filled garden roller, covered with two plies of indoor-outdoor carpet to roll barrier immediately after application, with special attention at overlaps and "T-Joint". Seal all end laps with *650 Mastic*.

It is recommended that when vertical sections of more than 8' (2.4 M) are to be protected, barrier should be applied in sections no longer than 8' (2.4 M), starting from the lower foundation base and rising to the top with the 6" (152 mm) overlap, shingling down on each ply of barrier.

TERM Foundation Water|Termite Barrier should be applied over the edge of the footing at the foundation base with the 6" (152 mm) overlap, shingling down on each ply of barrier. Terminations on vertical surface use a termination bar, reglet, or counter flashing. The terminated edge should be pressed firmly with a silicone roller and protected from water with a troweled bead of *650 Mastic*.

Flashing

Finish vertical wall barrier on top edge under flashing or in reglet. Seal T-Joints and terminations with a troweled bead of *650 Mastic*.

Care should be taken to obtain good adhesion between barrier used for repairs and originally applied barrier.

Mastic Application

650 Mastic should be applied at all terminations at the end of each day's work. *650 Mastic* should never be applied underneath the barrier.

Inspection and Repairs

Visually inspect barrier for tears, punctures, air blisters and "fishmouths", prior to water tests, placement of protection board and backfilling. Make repairs by removing all damaged barrier so that only well bonded barrier remains. Re-prime any exposed concrete. After *Liquid Adhesive* is dry, apply a new sheet of barrier over the concrete, extending 6" (152 mm) onto previously applied barrier. Slit all "fishmouths", overlap the pieces, place patch over area and roll or press in place. Puncture air blisters, expel the air, prime and cover with patch. Seal edges with *650 Mastic*

Ultraviolet Protection

TERM Foundation Water/Termite Barrier can be adversely affected by ultraviolet light. The waterproofing system must be covered and protected from UV as soon as possible and not left exposed to sunlight for over 30 days.

Barrier left exposed on top of foundation walls or parapets should be covered with weather resistant flashing

Barrier Protection and Drainage Mat

Polyguard Polyflow 15-P Drainage Protection/Drainage Mat with built in puncture protection plus drainage for vertical surfaces is required. This helps keep the structure dry and makes it less attractive to foraging termites.

Drainage:

Drainage systems should be designed with pipe sizes large enough to prevent water accumulation against the foundation. Perforated pipe should be covered with fabric to prevent fines or dirt from plugging perforations. Pipe should be of sufficient strength to prevent deformation due to soil weight or movement. Consideration should be given to provide drain outlets to the interior of the building when the water table level is above the base of the waterproofing barrier.

Backfill

No waiting is required before backfilling. Backfill material

should be dry sand or dry soil dirt as following:

1. Fill material free of large dirt clods, rock, tree roots and debris.
2. Backfill should be of a type readily compactable upon deposit.
3. It should be placed against the drainage mat in 6" (152mm) to 8" (203mm) compacted layers to avoid vertical settlement.
4. Backfill should not have a high-water content that would cause soil to shrink upon drying.
5. Mechanical compaction in horizontal layers should be used to achieve these results if necessary.
6. Avoid sharp impact to the drainage mat when backfilling.



STORAGE

Barrier and accessories should be unloaded and stored carefully. Cartons and containers must be protected from weather, sparks, flames, excessive heat, cold and lack of ventilation. **DO NOT** stack barrier material higher than 5' (1.5m) vertically, nor double stack pallets. Cartons should be stored on pallets and covered to prevent water damage. For best results, barrier should be stored 50-75°F prior to application.

HEALTH AND SAFETY

All Polyguard Products Safety Data Sheets (SDS) and precautionary labels should be read and understood by all user supervisory personnel and employees before using. Purchaser is responsible for complying with all applicable federal, state or local laws and regulations covering use, health, safety, and disposal of the product.

PACKAGING INFORMATION

PRODUCT	UNIT OF MEASURE	APPROXIMATE COVERAGE	LB/UNIT	PALLETIZATION
TERM Foundation Water/Termite Barrier 39.4" x 61' (1.0 m x 18.6 m) 48" x 50' (1.27 m x 15.24.m)	Carton (1 roll)	200 ft ²	75	30 cartons
Polyguard 650 LT Liquid Adhesive	5-Gal Pail or 4-1-Gal Pail	250 – 350 ft ² /gallon	45 lb. 31 lb.	36 Pails 54 Cartons
Polyguard 650 WB Water Base Liquid Adhesive	5-Gal Pail or 4-1-Gal Pail	350 – 400 ft ² /gallon	50 lb. 37 lb.	36 Pails 54 Cartons
Polyguard Detail Sealant	Carton with 12 30 oz. tubes	1/8" bead – 293 lf/tube 1/4" bead – 73 lf/tube 3/8" bead – 30 lf/tube	32 lb.	25 Cartons
Polyguard 650 Mastic	5-Gal Pail or Ctn of 12 30 oz. tubes	1/2" bead 65 LF/tube 1" bead 100 LF/gallon	48 lb./Pail	36 Pails 25 Cartons

PHYSICAL PROPERTIES

PROPERTY	ASTM METHOD	RESULTS (ENGLISH)	RESULTS (METRIC)
Color	--	White and red	White and red
Barrier Thickness	ASTM D 1000 inch (mm)	.068	1.73
Long Term Testing against Termite Penetration www.polyguardbarriers.com/techref.htm	ICC AC380 Acceptance Criteria for Termite Physical Barrier Systems	100% effective	100% effective
Elongation of Barrier Sealant – Percent Stretch Before Failure	ASTM D 412	> 1000%	> 1000%
Resistance to Radioactive Radon Gas	Radon Reduction Technology Laboratory % Reduction in radon gas diffusion	97.1%	97.1%
Pesticide Repellency (Chlordane, fipronil, permethrin)	ASTM F 2130	0%	0%
Permeance to Moisture / Water Vapor	ASTM E 96-B Grains/ft ² /hr./in HGF (grains/hr./m ²)	.03	.02
Tensile Strength – Film Backing	ASTM D 882 PSI / (N/mm ²)	6500	44.82
Tensile Strength – Barrier Composite	ASTM D 412(Modified Die C) PSI / (N/mm ²)	325	2.24
Peel Adhesion	ASTM D 1000lb/in width / (N/mm)	10.0	1.75
Overlap Bond	ASTM D 1000lb/in width / (N/mm)	8.0	1.4
Low Temperature Flexibility	ASTM D 146 180° bend over 1" mandrel at -25°F(-32°C)	No cracking or delamination	No cracking or delamination
Barrier Puncture Resistance	ASTM E 154 (Blunt Instrument) lb. / (N)	50	182
Resistance to Hydrostatic Head	ASTM D 5385Ft / M	231	70.4

* Please refer to testing at this web address: www.polyguardproducts.com/term/techref.htm

LIMITATIONS

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

When properly installed, TERM Barrier products will physically block termites from entering the structure at the protected area but will not block termites from entering at other points on the structure. Installing more TERM components blocks more termite entry points, but does not guarantee protection in areas the TERM products 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 has been extensively tested, both in the laboratory and in long term field trials at multiple sites, against *Reticulitermes flavipes* and *Coptotermes formosanus* subterranean termites, which can be said to be the most voracious insects in the United States measured in terms of property damage. 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.

There are numerous other termite species, not known to be present in the United States, which are equally or more voracious than the U.S. species which were tested. Limited testing outside of the United States has been done or is in progress. Contact Polyguard for up-to-date information about non-domestic testing.

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.

Purchaser is responsible for complying with all applicable federal, state, or local laws and regulations covering use of the product including waste disposal.

TECHNICAL SERVICES & SALES

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