

Perform Guard No. 6010

Subject: Field Testing

Date: January 2008 (Revised January 2019)

PowerFoam with Perform Guard® termite resistant molded polystyrene is recognized in code evaluation reports for below grade applications in regions of very heavy termite pressure. PowerFoam with Perform Guard received this recognition through extensive below grade in-situ testing over a period of 5 years at three termite testing locations in the southern U.S. This bulletin provides a brief description of the testing along with pictures of the test results.

Three test plots were selected for the evaluation of PowerFoam with Perform Guard. The test plots were located in Georgia and Mississippi. These plots are within the region defined as very heavy termite pressure by the model building codes. PowerFoam contracted with a third party testing firm, Rich Mountain, to conduct all testing and report all test results.

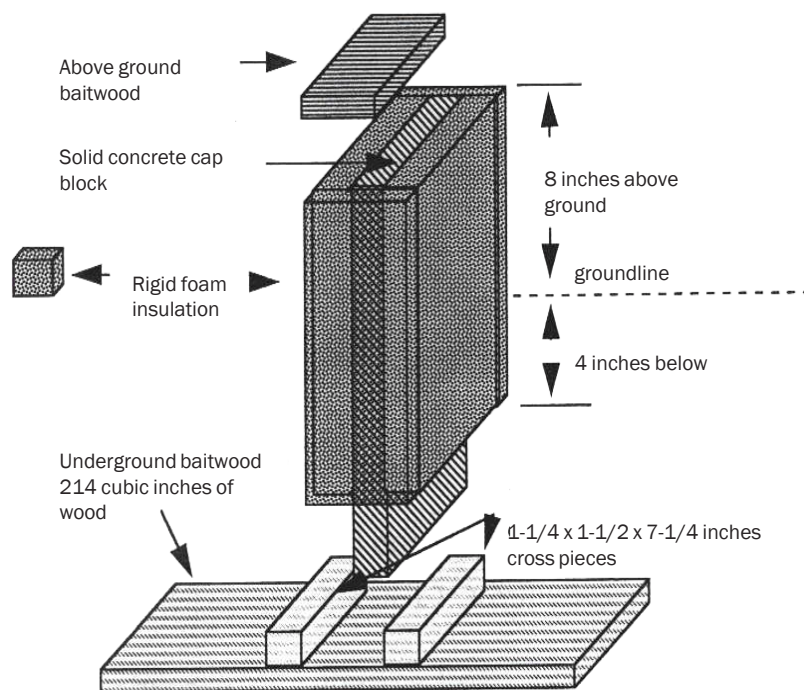
The testing was conducted following a test method developed jointly by Rich Mountain and PowerFoam. The test method was modeled after AWPA E-7-93, "Standard Method Of Evaluating Wood Preservatives By Field Tests With Stakes." The testing consisted of samples adhered with construction adhesives/sealants to a concrete block. This geometry was selected to mirror below grade insulation of concrete/masonry walls. The detailed test method is available from PowerFoam upon request.

The samples geometry was such that the samples were installed adjacent to below grade bait wood. This was intended to accelerate the exposure to termites by providing an large initial food source for the termites. A second piece of bait wood was installed above the sample to evaluate the extent that termites would excavate and tunnel through the insulation.

Attached to this bulletin are pictures from our testing. These include the sample fixture geometry, test plots, and cross sections of excavated samples.

The performance of the PowerFoam with Perform Guard sample is quite dramatic when compared to untreated insulation. Untreated insulations shows very obvious damage resulting from extensive excavation and tunneling. In contrast, PowerFoam with Perform Guard shows very little damage.

The extensive testing conducted on PowerFoam with Perform Guard has led to Perform Guard being the only rigid foam recognized for application in areas of heavy termite pressure.



TEST FIXTURE - replicates below ground applications.



TEST FIXTURE - Prior to installation showing underground baitwood base to attract termites to site. Canister cover to protect termite activity.



Field installation of test textures - Stone County, Mississippi.



Field installation of test textures - Griffin, Georgia.



**#45 TEST FIXTURE - Examination of of non-treated EPS after 3 years exposure.
Highland Site, Mississippi.**



#45 TEST FIXTURE - cut open to reveal extensive termite damage.



#45 TEST FIXTURE - Close-up shows extensive termite damage.



#45 TEST FIXTURE - Close-up shows active termites.



#45 TEST FIXTURE - Close-up shows nesting infestation of termites.



#45 TEST FIXTURE - Close-up shows termite nesting galleries formed in non-treated EPS.



#64 TEST FIXTURE - Examination of PowerFoam with Perform Guard after 3 years exposure. Highland site, Mississippi.



#64 TEST FIXTURE - cut open to reveal limited termite damage.



#64 TEST FIXTURE - Close-up shows no termite damage.



#64 TEST FIXTURE - Close-up shows slight termite damage.



**#64 TEST FIXTURE -
PowerFoam with Perform
Guard and R-Control
Do-All-Ply.**

**#45 Test Fixture -
Non-Treated MPS and standard
construction adhesives.**



#64 and #45 TEST FIXTURES - Close-up comparison.



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