



Perform Guard No. 6012

Subject: Perform Guard EPS - Termite Resistance Testing Update

Date: January 2008

AFM developed a full scale research program in the 1990's to determine the effectiveness of Perform Guard when exposed to termites.

Some historical research had been previously conducted on foam plastic insulation but these were small scale laboratory tests and could not be anticipated to match performance in real world applications. Small scale laboratory tests do not replicate the below grade installation geometry of insulation nor do they typically provide the necessary time exposure of field installations.

Other research has also been published on borate treated expanded polystyrene, but these are either at dosage levels not commensurate with Perform Guard or do not meet the requirements of the International Code Council Evaluation Service (ICC ES) for termite resistant foam plastics (Evaluation Guide 239). The requirements of the ICC ES evaluation guide include:

- Testing shall be conducted for at least 3 years
- Testing shall be in accordance with AWPA E-7, "Standard Method of Evaluating Wood Preservatives by Field Tests with Stakes", modified to suit the intended application of the termite resistant foam plastic.
- Testing shall be representative of the final installed product.
- Test assemblies shall be exposed to a minimum of three termite test plots.
- Minimum of five replicates for each assembly type per test plot.

Based upon these requirements, the AFM program was developed to ensure that the test data was not limited to a laboratory testing, but instead a full scale test program of samples installed in heavy termite regions of the U.S. Foam-Control contracted with a third party researcher to conduct

the testing. The testing consisted of evaluating Perform Guard at three test sites. One test site was located in the USDA research forest in Athens, Georgia. Two additional test sites were located near Gulfport, MS. At each test site, a minimum of 10 samples of Foam-Control EPS with Perform Guard were evaluated. Foam-Control worked to ensure that the testing fully complied with ICC ES Evaluation Guide 239.

Upon completion of the test program, AFM submitted the complete test data to ICC ES for evaluation. ICC ES has subsequently published Evaluation Service Report (ESR) number ESR-1006 which includes recognition of Foam-Control EPS with Perform Guard as a termite resistant insulation.

A summary of the third party research data from the AFM program was submitted to the peer reviewed Forest Products Journal for publication. The paper met the stringent requirements of peer review and has been published in the March 2005 issue of the Forest Products Journal. A copy of the article is attached to this technical bulletin.

The attached test were conducted under severe exposure conditions that are intended to exceed actual exposure conditions. Regardless of application area, Perform Guard should be installed following the Perform Guard below grade Application Guide.



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