

Perform Guard No. 6011

Subject: Building Code Compliance

Date: January 2008 (Revised January 2019)

ThermaFoam with Perform Guard® termite resistant molded polystyrene is recognized in ThermaFoam building code evaluation reports for below grade applications in regions of very heavy termite pressure. This bulletin provides a description of the testing required by the International Code Council Evaluation Service (ICC ES) to achieve this recognition.

The ICC ES requirements to recognize a foam plastic insulation as termite resistant are detailed in the “EVALUATION GUIDELINE FOR TERMITE-RESISTANT FOAM PLASTICS,” also known as AC 239. A summary of the testing requirements of AC239 are as follows:

- 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.
- Assemblies shall be arranged in a randomized complete block design within the plots.

The assemblies are inspected annually along with wood monitoring stakes to ensure that the plots are providing sufficient and uniform exposure to termites. After 36 months of exposure, the test assemblies are destructively evaluated for termite damage. After the 36 months of exposure, the termite-resistant foam plastic shall have no more than 5 percent damage. Control or non treated samples shall also be evaluated to confirm termite damage.

The development of AC239 was in response to language in the model codes. For example, Section 320.5 of the 2006 International Residential Code (IRC) states: “ In areas where the probability of termite infestation is “very heavy” ... extruded and expanded polystyrene, polyisocyanurate and other foam plastics shall not be installed on the exterior face or under interior or exterior foundation walls or slab foundation located below grade.”

Thus, the use of foam plastics is restricted from use in areas of “very heavy” termite exposure. However, included in the IRC is language for exceptions to the restriction. Specifically, exception 2 states that: “When in addition to the requirements of R320.1, an approved method of protecting the foam plastic and structure from subterranean termite damage is provided.”

ThermaFoam with Perform Guard has been evaluated by the ICC ES in accordance with AC239 under exception 2 of section R320.1 of the IRC. As a result, ThermaFoam with Perform Guard has been recognized in the ICC-ES evaluation report, ESR-1006. ESR-1006 section 4.5 provides for the special use of ThermaFoam with Perform Guard in wood construction in areas of very heavy termite infestation. The evaluation report language of section 4.5 is “ThermaFoam with Perform Guard boards are termite-resistant and are not restricted under Section R320.5 of the IRC or Section 2603.8 of the IBC.”

Subsequently, ThermaFoam with Perform Guard may be used in regions of “very heavy” termite exposure.

The ThermaFoam with Perform Guard treatment is for the protection of the insulation integrity and does not provide protection for the structure. A pest control operator should be contacted for protection of the structure in accordance with the IRC or IBC. Methods of protection may be chemical soil treatment, pressure preservative treated wood, naturally termite resistant wood, physical barriers, or any combination of these methods.



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