

Perform Guard No. 6007

Subject: Foam Material Properties

Date: January 2008 (Revised January 2019)

ThermaFoam R-Control has developed a proprietary treatment for Molded Polystyrene which makes it resistant to termites. The product is ThermaFoam R-Control with Perform Guard®. Testing has been done both in the laboratory and field.

In addition to field and laboratory exposure tests, ThermaFoam R-Control has conducted plant processing procedures, physical property testing, and coordinated system compatibility studies.

Processing Procedures

ThermaFoam R-Control, in cooperative work with its licensed facilities, has developed the processing techniques for the manufacture of Perform Guard product that meets or exceeds the requirements of ASTM C578, "Standard Specification For Rigid, Cellular Polystyrene Thermal Insulations".

Physical Tests

Underwriters Laboratories has evaluated ThermaFoam R-Control with Perform Guard for physical performance under appropriate ASTM Standards. Flexural Testing (ASTM C203) of Perform Guard showed strengths equal to or greater than minimum standards. Compressive Testing (ASTM C165) showed strengths equal to or greater than minimum standards. Density Testing (ASTM C303) showed densities equal to or greater than minimum standards. Perform Guard is a listed UL material.

In-Plant Testing

The Quality Assurance procedures of ThermaFoam R-Control's Third Party Quality Control Program call for in-plant testing of each lot of material. ThermaFoam R-Control had testing Perform Guard under the guidelines of UL QC Program. These tests qualify daily production runs of ThermaFoam R-Control with Perform Guard to the critical standards of ASTM C578.

Fire Performance

ThermaFoam R-Control submitted ThermaFoam R-Control with Perform Guard samples to Underwriters Laboratories for fire evaluation. UL 723 "Test for Surface Burning Characteristics of Building Material" tests (also known as ASTM E84) were run. The results showed that ThermaFoam R-Control with Perform Guard has a similar flame spread and smoke developed rating, when compared to industry standard. Addition full scale testing conducted on systems, such as ThermaFoam R-Control Structural Insulated Panels, using ThermaFoam R-Control with Perform Guard, demonstrated passing fire performance.

Systems Compatibility

Compatibility studies by various adhesive manufacturers and independent laboratories have shown that adhesive laminations using Perform Guard do not differ from untreated molded polystyrene foam. Corrosion testing, using the Kesternich Cabinet procedure, has shown no corrosion to metal.

Note: ThermaFoam R-Control with Perform Guard has been tested against termites. A list of specific species on file. ThermaFoam R-Control with Perform Guard is not a barrier system, but should be used as a component in a total insect management program.



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