



POLYFOAM PRODUCTS, INC.

A 3M Company

Michael Beaton
ICC Evaluation Services, Inc.
5360 Workman Mill Road
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Mr. Beaton,

I am writing to comment on proposed revisions to AC 152, The Acceptance Criteria for Adhesive Attachment of Concrete or Clay Roofing Tiles.

Dow Chemical Company is proposing the elimination of two tests from AC152. Those tests are Water Vapor Transmission (ASTM E96) and Closed Cell Content (ASTM D2856). Polyfoam Products, Inc.'s position is that these two tests should not be eliminated from AC-152 for these reasons:

We feel that these two tests are directly related. The water vapor transmission of foam is directly related to the closed cell content. The higher the percentage of open cells in the foam, the greater the water vapor transmission. Over time, and especially in a warm humid climate, the water contained in the foam will degrade the polymer structure of the adhesive, potentially weakening the uplift resistance.

Dow also states in their letter that in field application their adhesive is compressed, and therefore the closed cell content is irrelevant. In actual application 100% of the Dow adhesive is not compressed to the degree that there is no cellular structure remaining. The tensile strength of foamed adhesives is directly related to the closed cell content. A foamed adhesive with a high percent of closed cells will inherently have a higher tensile strength than a foamed adhesive with a low percent of closed cells.

These facts are well known to the foamed adhesive industry, and to the polyurethane foam industry as well. The two tests, Closed Cell Content and Water Vapor Transmission have been part of AC-152 since it was developed. All manufacturers of foamed adhesives were required to produce products meeting the water vapor transmission and percent closed cell tests. The two tests were relevant then, and our position is that they still are.

We are not aware of any existing long term test data that would indicate that foamed adhesives with a closed cell content of less than 70% perform as well as foamed adhesives with a closed cell content greater than 70%. In absence of such test data, we request that the proposed changes to AC-152 be denied.

Patrick M. Donahue
Operations Manager
Polyfoam Products, Inc., a 3M Company