

Hi Mo,

FBC 1523.6.5.2.17 sets forth physical property requirements for roof tile adhesive.

Nemo believes Section (7) is erroneously written:

1523.6.5.2.17.7

Tested in compliance with ASTM E96 for moisture vapor transmission for a maximum of 3.1 perms.

We believe the section should state:

*"Tested in compliance with ASTM E96 for moisture vapor **permeability** for a maximum of 3.1 **perm-inch**"*

Rationale:

- First off, "Water Vapor Transmission" does not have units of "perms". Units of "perms" are associated with "Water Vapor Permeance", which includes the pressure-differential component of the test.
- Secondly, roof tile adhesive, by its nature, is a field-applied product and does not have a fixed, codified thickness; the application thickness varies dependent on the method of application and the profile of the tile. Meanwhile, the ASTM E96 test method does not specify a fixed specimen thickness. That said, performance criteria inclusive of the as-tested thickness component of the test (aka, Permeability) would ensure consistency from test-event to the next.
- Thirdly, other codified standards for foamed-plastic which include a water-vapor performance criteria driven by ASTM E96 testing specify one of the following:
 1. Permeance (perms) criteria with a specified test specimen thickness requirement:
Example:
 - ASTM C1289: Factory-Produced Polyisocyanurate Thermal Insulation
 - While this standard has a **permeance** criteria (perms), it specifies that the test specimen is 1-inch thick.
 2. Permeability (perm-inch) criteria:
Example:
 - ASTM C1029: Field-Applied Sprayed Polyurethane Thermal Insulation
 - This standard has a **permeability** (perm-inch) requirement, and does not specify the test specimen thickness, so the thickness of the tested specimen forms part of the permeability (perm-inch) criteria.
 - Sidebar: The magnitude of the C1029 permeability criteria is max. 3.0 perm-inch, which coincides with the criteria of "max. 3.1" set forth in FBC 1523.6.5.2.17.7.

Best,

Robert Nieminen, P.E.

President



NEMO|etc.®

353 Christian Street, Unit 13
Oxford, CT 06478
Office: (203) 262-9245, ext. 103
Cell: (203) 809-5614
www.nemoetc.com
www.nemocert.com