Ampex Water Vapor Permeance

The Amvic's insulated radiant PEX panel has been tested by a third party independent testing laboratory (QAI Laboratories) as per ASTM E96 [Standard Test Methods for Water Vapor Transmission of Materials (desiccant method)]. The test was conducted using both Type II (Type 2), 1.5 lbs/ft³ (24 kg/m³) and Type IX (Type 3) 2.2 lbs/ft³ (35 kg/m³) nominal densities.

Test results are as following:

<table>
<thead>
<tr>
<th>Density</th>
<th>Specification for Rigid Polystyrene Insulation</th>
<th>Water Vapor Permeance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 lbs/ft³ (24 kg/m³)</td>
<td>Type II Type 2</td>
<td>0.42 US Perm</td>
</tr>
<tr>
<td>2.2 lbs/ft³ (35 kg/m³)</td>
<td>Type IX Type 3</td>
<td>0.31 US Perm</td>
</tr>
</tbody>
</table>

Canada

The National Building Code of Canada (NBC) section 9.25.4 Vapour Barriers states the following:

9.25.4.2. Vapour Barrier Materials

1) Vapour barriers shall have a permeance not greater than 60 (ng/Pa.s.m²) measured in accordance with ASTM E96/96M, "Water Vapor Transmission of Materials," using the desiccant method (dry cup).

Since the tested values for vapor permeance fall below the established 60 ng/Pa.s.m² threshold, Ampex is an approved vapor barrier and no additional vapor barrier layer is required with the use of this product.

US

Effective with the 2009 IRC, there are three vapor retarder classes;

- Class I: 0.1 US perm or less
- Class II: 0.1 to ≤ 1.0 US perm
- Class III: 1.0 to ≤ 10 US perm

Ampex panel qualifies as a Class II vapor retarder.