

# 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/ft<sup>3</sup> (24 kg/m<sup>3</sup>) and Type IX (Type 3) 2.2 lbs/ft<sup>3</sup> (35 kg/m<sup>3</sup>) nominal densities.

Test results are as following:

Density	Specification for Rigid Polystyrene Insulation		Water Vapor Permeance	
1.5 lbs/ft <sup>3</sup> (24 kg/m <sup>3</sup> )	Type II	Type 2	0.42 US Perm	23.8 ng/Pa.s.m <sup>2</sup>
2.2 lbs/ft <sup>3</sup> (35 kg/m <sup>3</sup> )	Type IX	Type 3	0.31 US Perm	17.5 ng/Pa.s.m <sup>2</sup>

## 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.m<sup>2</sup>) 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.m<sup>2</sup> 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.