

**CHAPTER 5  
RESIDENTIAL BUILDING DESIGN BY COMPONENT  
PERFORMANCE APPROACH**

**SECTION 502.1.1  
IECC Interpretation No. 02-05  
2003 Edition  
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**502.1.1 Moisture control.** The design shall not create conditions of accelerated deterioration from moisture condensation. Frame walls, floors and ceilings not ventilated to allow moisture to escape shall be provided with an approved vapor retarder having a permeance rating of 1 perm ( $5.7 \times 10^{-11} \text{ kg/Pa} \cdot \text{s} \cdot \text{m}^2$ ) or less, when tested in accordance with the desiccant method using Procedure A of ASTM E 96. The vapor retarder shall be installed on the warm-in-winter side of the thermal insulation.

**Exceptions:**

1. In construction where moisture or its freezing will not damage the materials.
2. Where the county in which the building is being constructed is considered a hot and humid climate area and identified as such in Figures 902.1(1) through 902.1(51) in Chapter 9 of this code.
3. Where other approved means to avoid condensation in unventilated framed wall, floor, roof and ceiling cavities are provided.



**Q:** The requirements in Section 502.1.1 stipulates that a vapor retarder must be installed on the warm-in-winter side of the thermal insulation. Is the installation of the vapor retarder required continuously across the face of the wall studs?

**A:** No. The word continuous is not used in the referenced code section. Therefore, a vapor retarder is not required to be installed in a manner that will provide a continuous barrier on the warm-in-winter side of the exterior wall. The performance criteria of a vapor retarder establishes that material must have a permeance rating not exceeding 1 perm in order to limit the amount of moisture vapor that passes through a material.

**Staff Note:** Also see *International Residential Code*, Committee Interpretation 01-05, Section R318.1 Moisture Control.

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