



Standard Specification for Insulated Vinyl Siding¹

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1. Scope*

1.1 This specification establishes requirements for insulated vinyl siding, which is vinyl siding with integral foam plastic insulating material, where the vinyl siding is manufactured from rigid PVC compound. Compliance with this standard requires insulated vinyl siding to demonstrate a thermal insulation value of R-2.0 or greater. Other performance requirements and test methods addressed by this standard include materials properties and dimensions, warp, shrinkage, impact strength, expansion, appearance, thermal distortion resistance, and windload resistance. Methods of indicating compliance with this specification are also provided.

NOTE 1—Insulated vinyl siding is composed of two major components: the vinyl siding and the insulating material. It is intended that the vinyl siding portion comply with Specification D3679. Applicable portions of Specification D3679 are included in this specification. Additional requirements that pertain only to the insulation as a separate material, or to the combination of vinyl siding and insulation as a whole, are also included. For further explanation, see Appendix X1.

1.2 Insulated vinyl siding shall be tested with the insulation material in place or removed, as specified in the applicable requirement or test method.

1.3 The use of PVC recycled plastic in this product shall be in accordance with the requirements in Section 4.

1.4 Insulated vinyl siding produced to this specification shall be installed in accordance with Practice D4756. Reference shall also be made to the manufacturer's installation instructions for the specific product to be installed.

1.5 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

¹ This specification is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.24 on Plastic Building Products.

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NOTE 2—There is no known ISO equivalent to this standard.

2. Referenced Documents

2.1 ASTM Standards:²

- C297/C297M Test Method for Flatwise Tensile Strength of Sandwich Constructions
- C578 Specification for Rigid, Cellular Polystyrene Thermal Insulation
- C591 Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation
- C1199 Test Method for Measuring the Steady-State Thermal Transmittance of Fenestration Systems Using Hot Box Methods
- C1289 Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
- C1363 Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus
- D618 Practice for Conditioning Plastics for Testing
- D635 Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
- D696 Test Method for Coefficient of Linear Thermal Expansion of Plastics Between –30°C and 30°C with a Vitreous Silica Dilatometer
- D1042 Test Method for Linear Dimensional Changes of Plastics Caused by Exposure to Heat and Moisture
- D1183 Practices for Resistance of Adhesives to Cyclic Laboratory Aging Conditions
- D1435 Practice for Outdoor Weathering of Plastics
- D2244 Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
- D2457 Test Method for Specular Gloss of Plastic Films and Solid Plastics
- D3679 Specification for Rigid Poly(Vinyl Chloride) (PVC) Siding
- D3892 Practice for Packaging/Packing of Plastics
- D4226 Test Methods for Impact Resistance of Rigid Poly(Vinyl Chloride) (PVC) Building Products

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

*A Summary of Changes section appears at the end of this standard