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Standard Specification for White Rigid Poly(Vinyl Chloride) (PVC) Insulating Storm Windows¹

This standard is issued under the fixed designation D 4973; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification establishes the requirements for material properties and performance characteristics for insulating storm windows manufactured of rigid poly(vinyl chloride) (PVC). Insulating storm windows included in this specification shall be complete window assemblies (systems) containing all necessary hardware, anchors, and miscellaneous equipment as specified herein.

1.2 The PVC insulating storm windows covered in this specification are to be used on the exterior of and interior of and in tandem with prime windows to improve interior climate control. They shall not be used by themselves as prime windows.

1.3 This specification includes common types of PVC insulating storm windows presently in production. No inference is to be drawn as to the acceptability of other insulating storm window types not listed.

1.4 This specification provides a classification of product types based on product design (style), application location (interior or exterior relative to prime window), and performance grade based on design pressure.

1.5 Although this specification establishes performance criteria, there is no intent to imply acceptable use of PVC insulating storm windows in a particular building or location. The specifying agency shall establish all requirements for a particular application and determine suitability of the product for its anticipated use.

NOTE 1—There are no ISO standards covering the primary subject matter of this specification.

1.6 The values stated in inch-pound units are to be regarded as the standard. The values in parentheses are for information only.

1.7 The following precautionary caveat pertains only to the test method portion, Section 11, of this specification: *This standard does not purport to address all of the safety problems, 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.*

2. Referenced Documents

2.1 ASTM Standards:

¹ This specification is under the jurisdiction of ASTM Committee D-20 on Plastics and is the direct responsibility of Subcommittee D20.24 on Plastic Building Products.

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A 165 Specification for Electrodeposited Coatings of Cadmium on Steel²

B 456 Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium²

B 633 Specification for Electrodeposited Coatings of Zinc on Iron and Steel²

C 1036 Specification for Flat Glass³

C 1048 Specification for Heat-Treated Flat Glass-Kind HS-Kind FT Coated and Uncoated Glass³

D 883 Terminology Relating to Plastics⁴

D 1600 Terminology for Abbreviated Terms Relating to Plastics⁴

D 1898 Practice for Sampling of Plastics⁵

D 2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates⁶

D 3656 Specification for Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Fiber Yarn⁷

D 3892 Practice for Packaging/Packing of Plastics⁸

D 4028 Specification for Solar Screening Woven from Vinyl-Coated Fiberglass Yarn⁷

D 4726 Specification for White Rigid Poly(Vinyl Chloride) (PVC) Exterior Profile Extrusions Used for Assembled Windows and Doors⁹

E 283 Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen¹⁰

E 330 Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference¹⁰

E 331 Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference¹⁰

E 380 Practice for Use of the International System of Units (SI) (the Modernized Metric System)¹¹

E 621 Practice for Use of Metric (SI) Units in Building Design and Construction¹⁰

E 631 Terminology of Building Constructions¹⁰

E 774 Specification for Sealed Insulating Glass Units¹⁰

² Annual Book of ASTM Standards, Vol 02.05.

³ Annual Book of ASTM Standards, Vol 15.02.

⁴ Annual Book of ASTM Standards, Vol 08.01.

⁵ Annual Book of ASTM Standards, Vol 08.02.

⁶ Annual Book of ASTM Standards, Vol 06.01.

⁷ Annual Book of ASTM Standards, Vol 07.02.

⁸ Annual Book of ASTM Standards, Vol 08.03.

⁹ Annual Book of ASTM Standards, Vol 08.04.

¹⁰ Annual Book of ASTM Standards, Vol 04.07.

¹¹ Annual Book of ASTM Standards, Vol 14.02.