Designation: ~~C1775 – 13~~ C1775 – 14

Standard Specification for Laminate Protective Jacket and Tape for Use over Thermal Insulation for Outdoor Applications[1]

This standard is issued under the fixed designation C1775; 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 addresses the minimum performance for flexible laminate protective jacket and a pressure sensitive adhesive tape for use over thermal insulation on pipes, duct, and equipment operating at both above and below ambient temperatures and installed outdoors, above ground. It does not include the following: protective metal jacket, homogenous plastic film jacket materials, modified asphalt jacket materials, and butyl rubber membranes.

1.2 This type of material ~~consists~~ shall consist of multiple layers of ~~plastic~~polymer film and aluminum foil laminated to one another with layer(s) of reinforcement as an option.

1.3 ~~While all jacket~~ Jacket and tape materials covered by this specification shall have low water vapor permeance ~~values,~~ values; however, they are not necessarily always used as vapor retarders. The water vapor transmission tests ~~are for~~ address the jacket and tape materials only and do not ~~for~~address overlaps or taped joints. All materials ~~are~~ shall be weather resistant and ~~of~~ intended to have sufficient strength to provide protection for mechanical insulation.

1.4 Materials covered under this specification ~~will~~shall have a high, medium, or low surface ~~emittance and are available in more than one color.~~emittance.

1.5 The top layer shall be on of the following: aluminum foil, a polymer film, or a polymer coating.

1.6 This specification includes jacket materials both with and without factory applied, pressure sensitive adhesives. The tape materials covered by this specification always have a factory applied, pressure sensitive adhesive.

1.7 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.

1.8 *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.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

C168 Terminology Relating to Thermal Insulation
C1136 Specification for Flexible, Low Permeance Vapor Retarders for Thermal Insulation
C1263 Test Method for Thermal Integrity of Flexible Water Vapor Retarders
C1338 Test Method for Determining Fungi Resistance of Insulation Materials and Facings
C1371 Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers
D774 Test Method for Bursting Strength of Paper
D882 Test Method for Tensile Properties of Thin Plastic Sheeting
D1000 Test Methods for Pressure-Sensitive Adhesive-Coated Tapes Used for Electrical and Electronic Applications
D1204 Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature
D3330 Test Method for Peel Adhesion of Pressure-Sensitive Tape

[1] This specification is under the jurisdiction of ASTM Committee C16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.40 on Insulation Systems.

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[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.