This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Designation: D7272 – 06 (Reapproved 2018)

Standard Test Method for Determining the Integrity of Seams Used in Joining Geomembranes by Premanufactured Taped Methods[1]

This standard is issued under the fixed designation D7272; 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 test method describes destructive quality control and/or quality assurance tests to determine the integrity of seams produced using taped seaming methods. This test method presents the procedures used for determining the quality of taped seams subjected to both peel and shear tests. These test procedures are intended for nonreinforced and reinforced geomembranes.

1.2 The types of tape seaming techniques used to construct geomembrane seams include the following:

1.2.1 *Inseam Tape*—This technique requires the membrane to be overlapped a minimum distance. The top sheet is folded back and both the bottom sheet and the top sheet are primed with an adhesive primer. The primer is allowed to flash off. The tape adhesive is applied to the bottom sheet so that a minimum of the tape will extend out from under the top sheet when laid over the tape. The top sheet is allowed to lay flat over the tape and the release paper is removed by pulling it at a 45 to 90 degree angle, keeping the release paper flat to the surface of the bottom sheet. The seam area is then rolled with a silicone-sleeved roller.

1.2.2 *Cover Strip Tape*—This technique requires the membrane to be overlapped a minimum distance. An area either side of the seam edge is primed. The primer is allowed to flash off. The cover strip is applied with the adhesive side down, centered over the top sheet edge while removing the release paper as it proceeds along centered over the edge of the top sheet. The cover strip is then rolled with a silicone-sleeved roller.

1.3 For nondestructive test methods, see Practice D4437/D4437M.

1.4 This test method is applicable for seaming processes that use tape adhesive as a seaming mechanism.

1.5 Subsequent decisions as to seam acceptance criteria are made according to the site-specific contract plans, specifications, and contractor quality control/contractor quality assurance (CQC/CQA) documents.

1.6 In case of a material-specific test method, this test method shall take precedence.

1.7 *Hazardous Materials*—Always consult the proper material safety data sheets for any hazardous material used for the proper ventilation and protection. The use of the oven in these test methods, in this practice, may accelerate fume production from the test specimen.

1.8 The values stated in both inch-pound and SI units are to be regarded separately as the standard. Values in parentheses are for information only.

1.9 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.10 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D413 Test Methods for Rubber Property—Adhesion to Flexible Substrate

D638 Test Method for Tensile Properties of Plastics

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D882 Test Method for Tensile Properties of Thin Plastic Sheeting

D4437/D4437M Practice for Nondestructive Testing (NDT) for Determining the Integrity of Seams Used in Joining Flexible Polymeric Sheet Geomembranes

[1] This test method is under the jurisdiction of ASTM Committee D35 on Geosynthetics and is the direct responsibility of Subcommittee D35.10 on Geomembranes.

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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.

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