



Designation: E2486/E2486M – 22

Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)¹

This standard is issued under the fixed designation E2486/E2486M; 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 covers a procedure for rapidly deforming by impact an EIFS for evaluating the effect of such deformation.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.3 *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 to determine the applicability of regulatory limitations prior to use.*

1.4 *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

D2794 Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)

E631 Terminology of Building Constructions

E2110 Terminology for Exterior Insulation and Finish Systems (EIFS)

¹ This test method is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.58 on Exterior Insulation and Finish Systems (EIFS).

Current edition approved March 1, 2022. Published March 2022. Originally approved in 2006. Last previous edition approved in 2018 as E2486/E2486M-13 (2018). DOI: 10.1520/E2486_E2486M-22.

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.

3. Terminology

3.1 For general terminology regarding EIFS and building in general, see Terminology **E2110** (for EIFS terms) and Terminology **E631** (for buildings in general).

4. Summary of Test Method

4.1 Specimens shall be subjected to rapid deformation by a falling standard weight. By gradually increasing the distance the weight drops, the point at which failure occurs can be determined.

4.2 The impact resistance classification shall be determined by the number of joules [inch-lb] achieved when at least six out of ten tests do not display broken reinforcing mesh that is visible to the naked eye under normal lighting conditions.

5. Significance and Use

5.1 This specification determines levels of impact resistance under Classes PB and PI EIFS.

5.2 This test method does not purport to simulate impact encountered in service.

6. Apparatus

6.1 The apparatus shall be as specified in the Apparatus Section of Test Method **D2794** with the following exceptions:

6.1.1 The cylindrical weight shall be 1.82 kg [4.0 lb],

6.1.2 The EIFS specimen shall fit below the tube,

6.1.3 The diameter of the hemispherical head shall be 13 mm [$\frac{1}{2}$ in.], and it shall be made to fit inside the guide tube instead of resting on the test panel, and

6.1.4 Disregard all information concerning the panel support, magnifier, and pin-hole detector.

7. Test Specimens

7.1 The EIFS base coat, reinforcing mesh, and finish coat shall be applied to 600 mm by 1200 mm [2 ft by 4 ft] sections of 25 mm [1 in.] thick insulation board, unless otherwise specified. Specimens shall be representative of those used in actual construction.

7.2 The reinforcing mesh(es) or reinforced coating shall be continuous and have no laps or joints. The reinforcing mesh(es) shall not be lapped onto the side or back of the specimen.