



Designation: E2486 – 06

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; 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 SI units are to be regarded as the standard. The values given in parentheses are for information only.

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

2. Referenced Documents

2.1 *ASTM Standards:*²

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

[E2110 Terminology for Exterior Insulation and Finish Systems \(EIFS\)](#)

3. Terminology

3.1 For definitions of general terms relating to EIFS, see Terminology [E2110](#).

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 (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 by 1200 mm (2 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.

8. Conditioning

8.1 Allow the specimens to cure a minimum of 28 days at $22 \pm 3^\circ\text{C}$ ($72^\circ \pm 5^\circ\text{F}$) and $50 \pm 5\%$ relative humidity. Conduct the test in the same environment or immediately on removal.

9. Procedure

9.1 Weigh the specimen and record the weight and the type and density of insulation board used in the specimen.

9.2 Place the specimen on a smooth flat, rigid surface with the coated side up. Be sure the specimen is flat against the

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 Finishing System (EIFS).

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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.