



Designation: E2430 – 05

Standard Specification For Expanded Polystyrene (“EPS”) Thermal Insulation Boards For Use In Exterior Insulation and Finish Systems (“EIFS”)¹

This standard is issued under the fixed designation E2430; 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 is for flat, uncoated expanded polystyrene thermal insulation boards for use in exterior insulation and finish systems (EIFS).

1.2 EIFS producers may have requirements in addition to, or different than, those in this specification.

1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for informational purposes only.

1.4 *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

C578 Specification for Rigid, Cellular Polystyrene Thermal Insulation

3. Ordering Information

3.1 The following information shall be provided when shipping materials under this specification.

3.1.1 Thickness, width and length,

3.1.2 Number of pieces,

3.1.3 Shipping address,

3.1.4 Required delivery date,

3.1.5 Billing information,

3.1.6 Certificate of compliance with this specification, and

3.1.7 EIFS producer name and product name for which insulation is to be used.

¹ This specification 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).

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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.

4. Requirements

4.1 The thermal insulation boards shall meet the following requirements.

4.1.1 Insulation boards shall meet the properties listed in Table 1 of Specification C578 for Type I.

4.1.2 Insulation boards shall be made of 100 % virgin EPS.

4.1.3 *Length*: 1219 mm (48 in.) ± 1.6 mm ($\pm 1/16$ in.)

4.1.4 *Width*: 610 mm (24 in.) ± 1.6 mm ($\pm 1/16$ in.)

4.1.5 *Thickness*:

4.1.5.1 Minimum 20 mm ($3/4$ in.) + 1.6 mm ($1/16$ in.)

4.1.5.2 Maximum: as specified

4.1.6 *Edge Trueness*: When measured with a straight edge, edges shall not deviate more than 0.8 mm ($1/32$ in.) in 305 mm (12 in.)

4.1.7 *Face Flatness*: When measured across the face with a straight edge, the maximum deviation for the straight edge shall not exceed more than 0.8 mm ($1/32$ in.)

4.1.8 *Squareness*: When measured on the large flat face from one corner to the opposing corner, the dimensional variations shall not exceed more than 0.8 mm ($1/32$ in.) in 305 mm (12 in.).

4.1.9 *Aging*. Prior to cutting into individual boards, the insulation billet shall remain in one of the following states:

4.1.9.1 For a minimum of 6 week at ambient temperatures and humidity conditions of the storage locations.

4.1.9.2 For a minimum of five (5) days at a constant temperature of 60°C (140°F).

4.1.9.3 For a minimum of 12 days at the existing temperature and humidity conditions of the storage location when thermal insulation boards are manufactured using low pentane EPS resin (< 4.5 % pentane) and vacuum molding technology.

4.1.9.4 For a minimum of 18 days at existing temperature and humidity conditions of the storage location when thermal insulation boards are manufactured using full pentane resin (nominal 6 % pentane) and using vacuum molding technology.

4.1.10 *Inspection and Quality Assurance*: The thermal insulation boards shall be produced under the EIFS producer's quality assurance program, which shall meet the requirements of the applicable local building regulations and the requirements of the EIFS producer in whose system the insulation is to be used.