



Standard Specification for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels¹

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1. Scope *

1.1 This specification covers the classification, materials of construction, workmanship, physical requirements, and methods of testing glass-fiber-reinforced polyester composite wall and ceiling panels intended for use in light construction and semi-structural applications.

1.2 Supplementary information on chemical resistance, impact resistance, and installation practice are provided in Appendix X1.

1.3 The classification of these composite panels into classes based on relative response to a laboratory test shall not be considered a fire-hazard classification.

1.4 Laboratory flammability tests (Test Methods E 84 and D 1929) applicable to this specification should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or conditions. However, results may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

1.5 The intent of this specification is to define the class, grade, and general laminate properties of the composite wall and ceiling liner panels in order to ensure a quality product which will perform in the intended application. This specification is not intended to restrict or limit technological changes affecting performance when changes are agreed upon between the purchaser and manufacturer.

1.6 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are provided for information only.

1.7 The text of this specification references notes and footnotes that provide explanatory material. These notes and footnotes (excluding those in Tables and Figures) shall not be considered as requirements of this specification.

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.*

NOTE 1—There are no ISO standards covering the subject matter of this specification.

2. Referenced Documents

2.1 ASTM Standards:

D 374 Test Methods for Thickness of Solid Electrical Insulation²

D 618 Method for Conditioning Plastics and Electrical Insulating Materials for Testing³

D 883 Terminology Relating to Plastics³

D 1600 Terminology of Abbreviated Terms Relating to Plastics³

D 1929 Test Method for Ignition Properties of Plastics³

D 2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates⁴

D 3029 Test Method for Impact Resistance of Flat Rigid Plastic Specimens by Means of a Tup (Falling Weight)⁵

D 3841 Specification for Glass-Fiber-Reinforced Polyester Plastic Panels⁶

D 3892 Practice for Packaging/Packing of Plastics⁵

E 84 Test Method for Surface Burning Characteristics of Materials⁷

E 631 Terminology of Building Constructions⁸

3. Terminology

3.1 General—Definitions are in accordance with Terminologies D 883 and E 631 and abbreviations with Terminology D 1600, unless otherwise indicated.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *camber, n*—non-linearity of the long axis of a panel.

NOTE 2—In the process of water jet, knife, saw, or rotary shear trimming of a continuous panel, sideways motion of the panel through the cutting medium can be induced by imbalances in the system. The resulting trim cuts, although maintaining parallelism between the long sides, may describe a continuous curve, rather than a straight line along the long axis of the panel. Imbalances in side-to-side cure rates or material distribution may also produce this phenomenon. This curvature of the long axis may create problems with installation of the panel. Limits are placed on the degree of non-linearity to minimize those problems.

² Annual Book of ASTM Standards, Vol 10.01.

³ Annual Book of ASTM Standards, Vol 08.01.

⁴ Annual Book of ASTM Standards, Vol 06.01.

⁵ Annual Book of ASTM Standards, Vol 08.02.

⁶ Annual Book of ASTM Standards, Vol 08.04.

⁷ Annual Book of ASTM Standards, Vols 04.07.

⁸ Annual Book of ASTM Standards, Vol 04.11.

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