



Designation: D8336 – 24

Standard Test Method for Characterizing Tack of Prepregs Using a Continuous Application-and-Peel Procedure¹

This standard is issued under the fixed designation D8336; 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 measurement of adhesion (tack) between partially cured (B-staged) composite prepreg and a surface in a peel test, under specified conditions. The test may be conducted to measure tack between a flexible layer of prepreg and another prepreg layer bonded to a rigid substrate (Method I) or a rigid metal substrate (Method II). This test method is primarily geared towards material characterization for automated material layup but can be modified for use with other processes. It is well known that material tack is a function of multiple processing and environmental variables. Permissible composite prepreg materials include carbon, glass, and aramid fibers within a B-staged thermoset resin.

1.2 Measured tack is specified in terms of a peel force at a given specimen width.

1.3 *Units*—The values stated in SI units are to be regarded as standard. The values given in parentheses after SI units are provided for information only and are not considered 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.

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

1.5 *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.*

¹ This test method is under the jurisdiction of ASTM Committee D30 on Composite Materials and is the direct responsibility of Subcommittee D30.03 on Constituent/Precursor Properties.

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2. Referenced Documents

2.1 *ASTM Standards*:²

- A480/A480M Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip
- D883 Terminology Relating to Plastics
- D1781 Test Method for Climbing Drum Peel for Adhesives
- D3167 Test Method for Floating Roller Peel Resistance of Adhesives
- D3330 Test Method for Peel Adhesion of Pressure-Sensitive Tape
- D3878 Terminology for Composite Materials
- D6862 Test Method for 90 Degree Peel Resistance of Adhesives
- E4 Practices for Force Calibration and Verification of Testing Machines
- E122 Practice for Calculating Sample Size to Estimate, With Specified Precision, the Average for a Characteristic of a Lot or Process
- E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods
- E456 Terminology Relating to Quality and Statistics
- E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

3. Terminology

3.1 *Definitions*—Terminology D3878 defines terms relating to composite materials. Terminology D883 defines terms relating to plastics. Terminology E456 and Practice E177 define terms relating to statistics. In the event of a conflict between terms, Terminology D3878 shall have precedence over the other documents.

4. Summary of Test Method

4.1 A continuous application-and-peel method is employed to quantify tack at given test conditions (such as temperature) between one B-staged prepreg layer and the surface of a second

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.