



Designation: G147 – 17

Standard Practice for Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests¹

This standard is issued under the fixed designation G147; 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 practice covers specimen preparation, identification, packing, shipping, handling, and conditioning before, during, and after natural and artificial weathering testing.

1.2 This practice includes details on the conditioning of specimens after exposure and before examination. This practice also covers long-term storage of file specimens.

1.3 Conditioning in this practice does not refer to the specific act of exposing the specimens to the weathering factors.

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.*

NOTE 1—There is no equivalent ISO standard describing procedures for identification, shipping, conditioning, and handling of specimens intended for natural or artificial weathering tests. ISO 139 and ISO 291 describe procedures used for conditioning specimens prior to and during physical property testing.

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.*

2. Referenced Documents

2.1 ASTM Standards:²

D618 Practice for Conditioning Plastics for Testing

D1729 Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials
D1776 Practice for Conditioning and Testing Textiles
D3924 Specification for Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials (Withdrawn 2016)³
E41 Terminology Relating To Conditioning
G7 Practice for Atmospheric Environmental Exposure Testing of Nonmetallic Materials
G24 Practice for Conducting Exposures to Daylight Filtered Through Glass
G90 Practice for Performing Accelerated Outdoor Weathering of Nonmetallic Materials Using Concentrated Natural Sunlight
G113 Terminology Relating to Natural and Artificial Weathering Tests of Nonmetallic Materials
G151 Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources
G152 Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
G153 Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
G154 Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials
G155 Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials

2.2 Other Documents:⁴

ISO 139 Textiles—Standard Atmosphere for Conditioning and Testing
ISO 291 Plastics—Standard Atmospheres for Conditioning and Testing

3. Terminology

3.1 The definitions given in Terminologies E41 and G113 are applicable to this practice.

¹ This practice is under the jurisdiction of ASTM Committee G03 on Weathering and Durability and is the direct responsibility of Subcommittee G03.01 on Joint Weathering Projects.

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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.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

*A Summary of Changes section appears at the end of this standard