



Designation: G198 – 17

Standard Test Method for Determining the Relative Corrosion Performance of Driven Fasteners in Contact with Treated Wood¹

This standard is issued under the fixed designation G198; 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 and focuses on the corrosion resistance of metal, metal-coated, and nonmetallic-coated smooth and deformed shank driven fasteners in contact with treated wood in exterior or high moisture exposure applications using comparative tests with control fastener specimens of standardized benchmarks. This test method may be used for preservative-treated wood.

1.2 This test method describes the apparatus, procedure, and conditions required to maintain test environments for the Cyclic Fog Test and the Steady State Moisture Test.

1.3 This test method describes the types of test samples, lists exposure periods, and gives guidance on interpretation of results.

1.4 Until experience is gained comparing laboratory-to-laboratory results with this test method, comparisons of fasteners, coatings, materials, or preservatives shall be made only within the results of the same test.

1.5 The values stated in SI units are to be regarded as standard. The values in parentheses are for information only.

1.6 *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.*

1.7 *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

- A90/A90M Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
- A153/A153M Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- B117 Practice for Operating Salt Spray (Fog) Apparatus
- B487 Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of Cross Section
- B499 Test Method for Measurement of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals
- B504 Test Method for Measurement of Thickness of Metallic Coatings by the Coulometric Method
- D610 Practice for Evaluating Degree of Rusting on Painted Steel Surfaces
- D1165 Nomenclature of Commercial Hardwoods and Softwoods
- D1193 Specification for Reagent Water
- D4442 Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials
- D4444 Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters
- E376 Practice for Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Testing Methods
- G1 Practice for Preparing, Cleaning, and Evaluating Corrosion Test Specimens
- G60 Practice for Conducting Cyclic Humidity Exposures
- G85 Practice for Modified Salt Spray (Fog) Testing
- G193 Terminology and Acronyms Relating to Corrosion

2.2 American Wood Protection Association:³

- U1-09 Use Category System: Use Specification for Treated Wood

¹ This test method is under the jurisdiction of ASTM Committee G01 on Corrosion of Metals and is the direct responsibility of Subcommittee G01.14 on Corrosion of Metals in Construction Materials.

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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 Available from American Wood Protection Association (AWPA), P.O. Box 361784, Birmingham, AL 35236-1784, <http://www.awpa.com>.

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