



Designation: D2201 – 23

Standard Practice for Preparation of Zinc-Coated and Zinc-Alloy-Coated Steel Panels for Testing Paint and Related Coating Products¹

This standard is issued under the fixed designation D2201; 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 the preparation of zinc-coated and zinc-alloy-coated sheet steel panels to be used for testing paint, varnish, lacquer, conversion coatings, and related products. It covers sheet steel coated with hot dipped galvanized, one-side galvanized, electrogalvanized, zinc-iron alloy coatings (such as galvanneal), and zinc-5 % aluminum alloy coatings. It does not cover steel panels coated with 55 % aluminum-45 % zinc alloy, because these behave more like aluminum than zinc.

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

1.3 *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.*

1.4 *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

A653/A653M Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

A875/A875M Specification for Steel Sheet, Zinc-5 % Aluminum Alloy-Coated by the Hot-Dip Process

A879/A879M Specification for Steel Sheet, Zinc Coated by

the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface

A1092 Specification for Steel Sheet, as Cold-Reduced, for Conversion to Annealed Cold-Rolled Steel Sheet, and Hot Dip Metallic-Coated Steel Sheet

D609 Practice for Preparation of Cold-Rolled Steel Panels for Testing Paint, Varnish, Conversion Coatings, and Related Coating Products

D6386 Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting

D7396 Guide for Preparation of New, Continuous Zinc-Coated (Galvanized) Steel Surfaces for Painting

F22 Test Method for Hydrophobic Surface Films by the Water-Break Test

2.2 ISO Standards:³

ISO 3575 Continuous hot-dip zinc-coated carbon steel sheet of commercial, lock-forming and drawing qualities

ISO 5002 Hot-rolled and cold-reduced electrolytic zinc-coated carbon steel sheet of commercial and drawing qualities

3. Significance and Use

3.1 The procedures described in this practice are designed to provide uniform zinc coated steel panels for testing of paint, varnish, lacquer, conversion coatings and related products.

3.2 The proper description of the zinc coating on the substrate is an important part of this practice. Seemingly slight differences in zinc coating can produce substantial differences in coating performance.

4. Metal Substrate

4.1 The test panels shall be completely free of any visible signs of storage stain or white rust (zinc corrosion). All corners and edges shall be smooth and uniformly rounded.

4.2 The type of zinc coating, zinc thickness, metal thickness, and panel size shall be agreed upon between the purchaser and seller.

¹ This practice is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.27 on Accelerated Testing.

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