



Designation: D7055 – 04

# Standard Practice for Preparation (by Abrasive Blast Cleaning) of Hot-Rolled Carbon Steel Panels for Testing of Coatings<sup>1</sup>

This standard is issued under the fixed designation D7055; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This practice covers the procedures to be followed in the preparation (by abrasive blast cleaning) of hot rolled steel panels for laboratory testing of coatings.

1.2 This standard practice does not include procedures for the application of coatings.

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

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.*

## 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

**A36/A36M** Specification for Carbon Structural Steel

**A572/A572M** Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel

**D4285** Test Method for Indicating Oil or Water in Compressed Air

**D4417** Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel

2.2 *ISO Standard:*

**ISO 8502-3, Part 3** Assessment of Dust on Steel Surfaces Prepared for Painting (pressure-sensitive tape method)<sup>3</sup>

2.3 *SSPC/NACE Standards:*<sup>4</sup>

**AB-1** Mineral and Slag Abrasives

**AB-2** Specification for Cleanliness of Recycled Ferrous Metallic Abrasives

**AB-3** Newly Manufactured or Re-Manufactured Steel Abrasives

**SP1** Solvent Cleaning

**SP5/NACE No. 1** White Metal Blast Cleaning

**SP10/NACE No. 2** Near-White Metal Blast Cleaning

**SSPC-VIS 1** Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning

## 3. Summary of Practice

3.1 This practice enables the user to specify the level of preparation of hot-rolled carbon steel test panels (prepared by dry abrasive blast cleaning) for testing of coatings, including the steel composition, the degree of surface cleanliness, and the type of abrasive.

## 4. Significance and Use

4.1 The procedures described in this practice are designed to provide hot-rolled, carbon steel panels with uniform and reproducible abrasive blast cleaned surfaces for testing of coatings.

## 5. Test Panels

5.1 Prepare the test panels from unpainted hot-rolled steel plate or bar stock as described in 5.2 and 5.3. The panels shall be made to a size and thickness as agreed upon between the purchaser and seller.

5.2 The steel composition shall be either Specifications **A36/A36M**, **A572/A572M**, or as agreed upon between the purchaser and seller.

5.3 The surface condition of the steel prior to surface preparation shall be specified and shall be one of two rust grades based on **SSPC-VIS 1**: Grade A, intact mill scale; or Grade B, rusting mill scale.

5.4 Saw-cut or sheared edges of the test panels shall have the burr removed. Sharp corners shall be broken using a grinding wheel.

<sup>1</sup> 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 D01.46 on Industrial Protective Coatings.

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<sup>2</sup> 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.

<sup>3</sup> Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

<sup>4</sup> Available from SSPC: The Society for Protective Coatings 40 24th Street, 6th Floor, Pittsburgh PA 15222-4656.