



Standard Practice for Installation of Vulcanized Rubber Linings¹

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1. Scope

1.1 This practice covers the techniques used to install rubber lining sheet stock in metal tanks, pipes, and other components. Installation requirements, procedures, inspection instructions, and storage conditions for the lined tanks or equipment are outlined.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

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 and health practices and determine the applicability of regulatory limitations prior to use. This standard may involve hazardous materials, operations, and equipment.*

2. Referenced Documents

2.1 ASTM Standards:²

- D429 Test Methods for Rubber Property—Adhesion to Rigid Substrates
- D2240 Test Method for Rubber Property—Durometer Hardness
- D4285 Test Method for Indicating Oil or Water in Compressed Air
- D4417 Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel
- D4538 Terminology Relating to Protective Coating and Lining Work for Power Generation Facilities
- D5162 Practice for Discontinuity (Holiday) Testing of Non-conductive Protective Coating on Metallic Substrates
- E1216 Practice for Sampling for Particulate Contamination by Tape Lift

¹ This practice is under the jurisdiction of ASTM Committee D33 on Protective Coating and Lining Work for Power Generation Facilities and is the direct responsibility of Subcommittee D33.09 on Protective Lining for Air Quality Control Systems.

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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.

2.2 International Organization for Standardization:³

ISO 8502-3 Preparation of Steel Substrates Before Application of Paints and Related Products—Tests for the Assessment of Surface Cleanliness—Part 3: Assessment of Dust on Steel Surfaces Prepared for Painting (Pressure-Sensitive Tape Method)

2.3 NACE Standards:⁴

SP0178 Standard Recommended Practice—Fabrication Details, Surface Finish Requirements and Proper Design Considerations for Tanks and Vessels to be Lined for Immersion Service

SP0188 Discontinuity (Holiday) Testing of New Protective Coatings

2.4 SSPC Standards:⁵

SSPC-Technology Guide 15 Field Methods for Retrieval and Analysis of Soluble Salts on Steel and Other Nonporous Substrates

SSPC-SP 1 Solvent Cleaning

SSPC-SP 2 Hand Tool Cleaning

SSPC-SP 3 Power Tool Cleaning

SSPC-SP 5/NACE No. 1 White Metal Blast Cleaning

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

3. Terminology

3.1 *Definitions*—Definitions for use with this standard are shown in Terminology D4538 or other applicable standards.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *autoclave, n*—a pressure vessel used for the curing or vulcanization of rubber parts by means of steam under pressure.

3.2.2 *blister, n*—an isolated convex deformation arising from the detachment of one or more layers of lining material.

3.2.3 *bond failure, n*—a separation of two adjoining surfaces.

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

⁴ Available from NACE International (NACE), 1440 South Creek Dr., Houston, TX 77084-4906, <http://www.nace.org>.

⁵ Available from Society for Protective Coatings (SSPC), 40 24th St., 6th Floor, Pittsburgh, PA 15222-4656, <http://www.sspc.org>.