



Designation: **D4259 – 88 (Reapproved 2012) D4259 – 18**

Standard Practice for Abrading Concrete Preparation of Concrete by Abrasion Prior to Coating Application¹

This standard is issued under the fixed designation D4259; 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 includes surface preparation of concrete to prepare the surface prior to the application of coatings.

1.2 This practice is intended to ~~alter the~~ create a surface profile ~~of the~~ in concrete and to remove foreign materials and weak surface laitance.

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~~ safety, health, and health ~~environmental~~ environmental practices and determine the applicability of regulatory limitations prior to use. ~~For specific hazard statements, see Section 5.~~*

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

[D4258 Practice for Surface Cleaning Concrete for Coating](#)

[D4285 Test Method for Indicating Oil or Water in Compressed Air](#)

[D4538 Terminology Relating to Protective Coating and Lining Work for Power Generation Facilities](#)

[D4541 Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers](#)

2.2 *Other ACI Standard:*³

[ACI-308 Guide to Curing Concrete](#)

2.3 *SSPC Standard:*⁴

[SSPC-SP 13 Surface Preparation of Concrete](#)

[ASTM D4259-18](#)

<https://standards.iteh.ai/catalog/standards/sist/3f21bb2b-8bd9-42c4-a7ee-88382d26f9ad/astm-d4259-18>

3. Terminology

3.1 *Definitions:*

3.1.1 Definitions for use with this standard are shown in Terminology [D4538](#) or other applicable standards.

4. Summary of Practice

4.1 This practice is intended to provide a clean, contamination-free, and roughened surface.

4.2 Acceptable surfaces shall be free of laitance, form release agents, curing agents, oil, grease, and other penetrating contaminants. The surface shall be free of fins, projections and loosely adhering concrete, dirt, and dust particles.

4.3 For some applications, a minimum concrete surface strength may be required for proper coating performance.

4.4 Acceptable methods of preparation include abrasive blasting (wet or dry), mechanical abrading, water blasting, and other similar procedures that will alter the surface profile of the concrete.

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 [D33.05](#) on Application and Surface Preparation.

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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~~ standard's Document Summary page on the ASTM website.

³ Available from American Concrete Institute (ACI), P.O. Box 9094, Farmington Hills, MI 48333-9094, <http://www.aci-int.org>.

⁴ Available from Society for Protective Coatings (SSPC), 800 Trumbull Dr., Pittsburgh, PA 15205, <http://www.sspc.org>.