



Designation: D5703 – 95 (Reapproved 2007)

Standard Practice for Preparatory Surface Cleaning for Clay Brick Masonry¹

This standard is issued under the fixed designation D5703; 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 non-abrasive surface cleaning of clay brick masonry to remove surface contaminants such as dirt, grease, loose material, soot, fly ash, hydrocarbon residues, algae, etc. in preparation for the application of water repellent coatings without damaging or altering the surface appearance of the clay brick masonry.

1.2 Procedures included in this practice are water cleaning, detergent water cleaning, pressurized water cleaning, steam cleaning, and acid cleaning. It is not intended for the cleaning of newly constructed brick masonry. Use of procedures described in this practice may not be appropriate where the surface is of a historical nature.

1.3 The values stated in inch-pound 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.* For specific hazard information see Section 5 and [Note 2](#) and [Note 3](#).

2. Referenced Documents

2.1 *ASTM Standards*:²

[C43 Terminology of Structural Clay Products](#) (Withdrawn 2009)³

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

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 D01.47 on Concrete, Stone and Masonry Treatments.

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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 The last approved version of this historical standard is referenced on www.astm.org.

3.1.1 *slurry, n*—a coating of finely ground clay, coloring agents, and water applied to the surface of clay brick during the manufacturing process prior to firing of the unit.

3.1.1.1 *Discussion*—Sand may also be added to the slurry.

3.2 For definitions of other terms found in this practice, refer to Terminology [C43](#).

4. Significance and Use

4.1 Surface cleaning is necessary to prepare clay brick masonry surfaces for application of coatings intended for water repellent protection. Surface cleaning helps to ensure proper adhesion or even penetration of the coating and to prevent unintended sealing-in of stains.

4.2 This practice addresses surface cleaning only. Other preparation or remedial repairs, such as repointing the masonry or replacing of units, may be necessary and must be completed prior to application of the water repellent treatment.

5. Hazards

5.1 Localized stains (for example efflorescence and metallic stains) and previously applied coatings not compatible with the water repellent treatment may require removal by other surface cleaning methods. Failure to remove localized stains prior to application of the treatment may prevent later removal of the stain.

NOTE 1—Methods for removing localized stains, including use of non-proprietary chemical compounds, can be found in several references, some of which are listed in [Appendix X1](#).

5.2 Do not perform water cleaning, detergent water cleaning, pressurized water cleaning, and acid cleaning at temperatures below 40°F.

5.3 Handle proprietary chemical cleaning products according to manufacturer's recommendations. Conform to established federal, state, local and project requirements for use and disposal of materials. Provisions for collecting and removing cleaning effluent may be necessary.

5.4 Use the minimum effective pressure if pressure washing equipment is employed for water cleaning or for flushing the surface for detergent water cleaning or chemical cleaning. Avoid excessive pressure that could damage the masonry surface.