



Standard Practice for Determination of the Effectiveness of Anti-Graffiti Coating for Use on Concrete, Masonry and Natural Stone Surfaces by Pressure Washing¹

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1. Scope

1.1 This practice covers a basic method for evaluating the performance of anti-graffiti products on mineral building substrates by a series of increasingly abrasive cleaning methods. The anti-graffiti materials are applied to a series of concrete, masonry and natural stone specimens for evaluation. Graffiti resistance is based on how a defined set of markings are removed by a designated set of cleaning techniques.

1.2 This practice also defines a procedure to evaluate graffiti removal after re-marking with subsequent re-cleaning. It does not address the re-treatment of substrates after a material is no longer graffiti resistant.

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

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:*²

D3924 Specification for Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials
D6578 Practice for Determination of Graffiti Resistance

3. Terminology

3.1 *Definitions:*

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.

3.1.1 *graffiti resistant, n*—the property of coatings to be resistance to the application of graffiti or exhibit easy removal of graffiti without surface damage, or both.

3.1.2 *non-sacrificial anti-graffiti coatings, n*—the property of a coating in which they remain intact or undamaged after the removal of graffiti from their surface.

3.1.3 *sacrificial anti-graffiti coatings, n*—the property of coatings in which they are destroyed or damaged during the removal of graffiti, therefore requiring subsequent re-application.

4. Summary of Practice

4.1 Spray paints and markers are applied to a series of concrete, masonry and natural stone test panels pre-treated with the product(s) to be evaluated. The paint(s) and mark(ers) are removed using a series of commercial building cleaning methods which begin with the least aggressive method, high-pressure water wash with a commercial graffiti cleaner and proceed to increasingly aggressive cleaning methods such as high-pressure hot water wash and high-pressure sodium bicarbonate wash.

5. Significance and Use

5.1 Graffiti on buildings and structures is a significant problem in various regions across the country. A variety of coatings have been developed to be either resistant to the application of paints/marker or to aid in their removal. This standard practice describes a procedure for evaluating the effectiveness of anti-graffiti coatings applied to various concrete, masonry and natural stone substrates. It does not address graffiti removal on metal or any other non-mineral substrate.

5.2 This practice only addresses graffiti removal on substrates in a laboratory environment, that have not been exposed to either natural or artificial weathering. Specification D6578 describes a method for graffiti removal after both natural and artificial weathering.

6. Apparatus

6.1 Commercial based graffiti removers used for concrete, masonry and stone surfaces are utilized to remove graffiti.