



Standard Test Method for Evaluating Edge Cleaning Effectiveness of Vacuum Cleaners¹

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1. Scope

1.1 This test procedure provides a quantitative laboratory method for determining the edge cleaning effectiveness of a vacuum cleaner along walls and baseboards.

1.2 This test method is applicable to household and commercial types of upright, canister, combination, stick and hand held vacuum cleaners.

1.3 The values stated in SI units are to be regarded as 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:²

D75 Practice for Sampling Aggregates

E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods

E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

F608 Test Method for Evaluation of Carpet Embedded Dirt Removal Effectiveness of Household/Commercial Vacuum Cleaners

2.2 Other Standards:

IEC 60312 Vacuum cleaners for household use – Methods of measuring the performance, 4th Edition³

3. Terminology

3.1 Definitions:

3.1.1 *cleaning ability, dry, n*—the potential of a vacuum cleaner to remove dirt from a surface (sometimes referred to in the industry as cleanability, dry).

3.1.2 *model, n*—the designation of a group of vacuum cleaners having identical mechanical and electrical construction with only cosmetic or nonfunctional differences.

3.1.3 *population, n*—the total of all units of a particular model vacuum cleaner being tested.

3.1.4 *sample, n*—a group of vacuum cleaners taken from a large collection of vacuum cleaners of one particular model which serves to provide information that may be used as a basis for making a decision concerning the larger collection.

3.1.5 *test run, n*—the definitive procedure that produces a singular measured result.

3.1.6 *unit, n*—a single vacuum cleaner of the model being tested.

4. Significance and Use

4.1 This test method provides an indication of how close to a wall or baseboard a vacuum cleaner removes dirt/dust. The amount of dirt removed in the laboratory test may not be the same as in a home; however, it will show that, in most cases, a vacuum cleaner that performs well in the laboratory will perform well in a home. Laboratory results may differ due to variations in the homes: carpets, dirt, and other factors.

NOTE 1—The primary goal of this test method is not to evaluate the degree or the amount of dirt or dust debris that a given product removes, but rather how close to a wall or baseboard a vacuum has performed some measure of cleaning.

4.2 In order to provide a uniform basis for measuring the performance described in 1.1, a standardized test carpet and test dust are employed in this procedure.

5. Apparatus

5.1 *Weighing Scale for Weighing Test Dirt*, accurate to 0.10 g (0.0035 oz) and having a weighing capacity of at least 500 g (1.1 lb).

5.2 *Stopwatch*, with a second hand or other type of equipment capable of establishing the specified rate of movement and total cycle time.

¹ This test method is under the jurisdiction of ASTM Committee F11 on Vacuum Cleaners and is the direct responsibility of Subcommittee F11.21 on Cleanability. Current edition approved Feb. 1, 2010. Published July 2010. DOI: 10.1520/F2797-10.

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 Available from International Electrotechnical Commission (IEC), 3 rue de Varembe, Case postale 131, CH-1211, Geneva 20, Switzerland, <http://www.iec.ch>.