



Standard Specification for Test Carpets and Pads for Vacuum Cleaner Testing¹

This standard is issued under the fixed designation F655; 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 specification provides construction details and a replacement procedure for the standard carpet and pad to be used when testing vacuum cleaners.

1.2 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 *ASTM Standards*:²

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

3. Basis of Selection

3.1 These standard carpets and pads are intended to provide a database and shall meet the following requirements:

3.1.1 Representative of carpets currently in popular use in the United States.

3.1.2 Reasonable anticipation of continued availability.

3.1.3 Compatible with other ASTM Committee F11 methods.

3.1.4 Provide a separation of cleaning effectiveness ratings between products with good reliability and repeatability.

4. Classification

4.1 The carpet types shall be classified according to accepted carpet industry practice, such as shag, multilevel, plush, etc.

¹ This specification is under the jurisdiction of ASTM Committee F11 on Vacuum Cleaners and is the direct responsibility of Subcommittee F11.21 on Cleanability.

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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.

5. Physical Requirements

5.1 *Carpets*³—The following carpet types and construction have been found acceptable for use in vacuum cleaner testing. They shall be made in accordance with the physical requirements given herein.

5.1.1 *Shag Custom Tufted Test Carpet Construction:*

| | | |
|-------------------|---|--|
| Construction type | tufted | |
| Gage | 1/8 in. | |
| Stitches | 2 2/3 in. | |
| Pile height | 1 1/8 in. (26.99 mm) | |
| Pile fiber | 1710 denier type 6.6 Nylon, type 896AS yarn | |
| Yarn ply | 2-ply tumbled autoclave heat set | |
| Face weight | 70 oz/yd ² ± 6 % variance in order to maintain the specified stitching and pile height | |
| Twist | 6Z × 6S | |
| Heat setting | autoclave- "superba" setting with stuffer box | |
| Shift | no | |
| Finish | pure—no type of finish shall be applied to the yarn or carpet | |
| Reference Only | Backing material: | |
| | Primary | woven polypropylene |
| | Secondary Back coating | woven polypropylene latex, 24 oz/yd ² (814 g/m ²) |

5.1.2 *Plush Custom Tufted Test Carpet Construction:*

| | |
|-------------------|--|
| Construction type | tufted |
| Gage | 3/16 in. (4.8 mm) |
| Stitches | 7.5/in. (2.95/cm) |
| Pile height | 3/16 in. (14.29 mm) |
| Pile fiber | filament nylon denier 1184/70 7N66 twist 1.5Z × 2.25S autoclave heat set |
| Yarn ply | 4 ply |
| Face weight | 38.9 oz/yd ² (1319 g/m ²) ± 6 % variance in order to maintain the specified stitching and pile height |

³ The sole source of supply of the test carpets known to the committee at this time is Textile Innovators Corporation, P.O. Box 8, Windsor, NC 27983. If you are aware of alternative suppliers, please provide this information to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee,¹ which you may attend.