



# Standard Test Methods for Paper Used for Vacuum Cleaner Filter Bags<sup>1</sup>

This standard is issued under the fixed designation F430; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 These test methods cover procedures to be followed for qualifying papers to be used in the manufacture of vacuum cleaner bags and filters. The filtration efficiency of the paper is not evaluated with the use of these test methods.

1.2 The procedures appear in the following sections:

Procedure	Sections
Air Permeability (Test Method <a href="#">D737</a> )	3-5
Basis Weight (Test Method <a href="#">D646</a> )	6-8
Bursting Strength (Mullen Test) (Test Method <a href="#">D774/D774M</a> )	9-11
Internal Tearing Resistance (Test Method <a href="#">D689</a> )	12-14
Tensile Breaking Strength (Test Method <a href="#">D828</a> )	15-17

1.3 The values stated in inch-pound units are to be regarded as the 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:*<sup>2</sup>

[D646](#) Test Method for Grammage of Paper and Paperboard (Mass Per Unit Area)

[D689](#) Test Method for Internal Tearing Resistance of Paper

[D737](#) Test Method for Air Permeability of Textile Fabrics

[D774/D774M](#) Test Method for Bursting Strength of Paper

[D828](#) Test Method for Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus<sup>3</sup>

2.2 *TAPPI Standards:*<sup>4</sup>

[T 403](#) Bursting Strength of Paper

[T 404](#) Tensile Breaking Strength of Paper and Paperboard

[T 410](#) Basis Weight of Paper and Paperboard

[T 414](#) Internal Tearing Resistance of Paper

## AIR PERMEABILITY

### 3. Scope

3.1 This test method covers the direct determination of the air permeability of vacuum cleaner bag filter media by the calibrated orifice method.

### 4. Significance and Use

4.1 Air permeability is an important factor in the performance of vacuum cleaner bag filter media, because it is a direct indicator of the resistance to air flow. It may also indicate the size of vacuum cleaner bag needed to achieve the desired air flow volume.

4.2 Performance specifications, both industrial and military, have been set up on the basis of air permeability and are used in the purchase of materials where permeability is of interest.

4.3 Since air permeability is not a linear function of pressure differential between paper surfaces, all tests should be made at a prescribed pressure differential, 0.5 in. (12.7 mm) of water.

### 5. Procedure

5.1 Determine the air permeability of the paper in accordance with Test Method [D737](#).

<sup>1</sup> These test methods are under the jurisdiction of ASTM Committee F11 on Vacuum Cleaners and is the direct responsibility of Subcommittee F11.23 on Filtration.

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<sup>2</sup> 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.

<sup>3</sup> Withdrawn. The last approved version of this historical standard is referenced on www.astm.org.

<sup>4</sup> Available from the Technical Association of the Pulp and Paper Industry, One Dunwoody Park, Atlanta, GA 30341.