



Standard Test Methods for Paper Used for Vacuum Cleaner Filter Bags¹

This standard is issued under the fixed designation F 430; 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 These test methods cover procedures to be followed for qualifying papers to be used in the manufacture of vacuum cleaner bags and filters.

1.2 The procedures appear in the following sections:

Procedure	Sections
Air Permeability (D 737)	3-5
Basis Weight (D 646)	6-8
Bursting Strength (Mullen Test) (D 774)	9-11
Internal Tearing Resistance (D 689)	12-14
Tensile Breaking Strength (D 828)	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:

D 646 Test Method for Grammage of Paper and Paperboard (Weight per Unit Area)²

D 689 Test Method for Internal Tearing Resistance of Paper²

D 737 Test Method for Air Permeability of Textile Fabrics³

D 774 Test Method for Bursting Strength of Paper²

D 828 Test Method for Tensile Breaking Strength of Paper and Paperboard²

2.2 TAPPI Standards:⁴

T 410 Basis Weight of Paper and Paperboard

T 403 Bursting Strength of Paper

T 414 Internal Tearing Resistance of Paper

T 404 Tensile Breaking Strength of Paper and Paperboard

AIR PERMEABILITY

3. Scope

3.1 This test method covers the direct determination of the

¹ These test methods are under the jurisdiction of ASTM Committee F-11 on Vacuum Cleaners and is the direct responsibility of Subcommittee F 11.23 on Filtration.

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² *Annual Book of ASTM Standards*, Vol 15.09.

³ *Annual Book of ASTM Standards*, Vol 07.01.

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

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 D 737.

BASIS WEIGHT

6. Scope

6.1 This test method covers the determination of the basis weight of paper used in the manufacture of vacuum cleaner bags.

7. Significance and Use

7.1 The basis weight is a measure of the substance of the paper.

8. Procedure

8.1 Determine the basis weight of the paper in accordance with Test Method D 646 (TAPPI Method T 410).

BURSTING STRENGTH

9. Scope

9.1 This test method covers measurement of the bursting strength of paper having a bursting strength of not over 200 psi (1.4 MPa) and occurring as a single or laminated sheet not over 0.025 in. (0.64 mm) in thickness.

10. Significance and Use

10.1 This test method is a measure of the degree of resistance to forces applied normal to the surface of the paper