



Designation: F430 – 13 (Reapproved 2024)

Standard Specification for Paper Used for Vacuum Cleaner Filter Bags¹

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 (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers 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 D737)	3 – 5
Basis Weight (TAPPI Test Method T 410)	6 – 8
Bursting Strength (Mullen Test) (TAPPI Test Method T 403)	9 – 11
Internal Tearing Resistance (TAPPI Test Method T 414)	12 – 14
Tensile Breaking Strength (TAPPI Test Method T 494)	15 – 17

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

- 2.1 *ASTM Standards:*²
[D737 Test Method for Air Permeability of Textile Fabrics](#)

¹ This specification is under the jurisdiction of ASTM Committee [F11](#) on Vacuum Cleaners and is the direct responsibility of Subcommittee [F11.23](#) on Filtration.

Current edition approved Jan. 1, 2024. Published January 2024. Originally approved in 1975. Last previous edition approved in 2018 as F430 – 13 (2018). DOI: 10.1520/F0430-13R24.

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.

2.2 *TAPPI Standards:*³

- [T 403 Bursting Strength of Paper](#)
- [T 410 Basis Weight of Paper and Paperboard](#)
- [T 414 Internal Tearing Resistance of Paper](#)
- [T 494 Tensile Breaking Strength of Paper and Paperboard \(using constant rate of elongation apparatus\)](#)

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](#).

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.

³ Available from Technological Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092, <http://www.tappi.org>.