



Designation: D4522 – 04

# Standard Performance Specification for Feather and Down Fillings for Textile Products<sup>1</sup>

This standard is issued under the fixed designation D4522; 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 This performance specification covers requirements for fillings for industry products such as wearing apparel, sleeping bags, and comforters containing down, feathers, down and feather blends, or combinations of the above with other natural or synthetic materials.

1.2 These requirements apply only to the filling material.

## 2. Referenced Documents

2.1 *ASTM Standards*:<sup>2</sup>

D123 [Terminology Relating to Textiles](#)

D4523 [Terminology Relating to Feather-Filled and Down-Filled Products](#)<sup>3</sup>

D4524 [Test Method for Composition of Plumage](#)

2.2 *IDFB Testing Regulations*:

Part 3 Determination of Composition

Part 7 Determination of Oxygen Number

Part 10 Volume Measurement (Fill Power)

Part 11a,b Determination of Turbidity

Part 12 Determination of Feather and Down Specie<sup>4</sup>

## 3. Terminology

3.1 *Definitions*—For the definitions of textile terms used in this standard, refer to Terminology [D4523](#).

## 4. Specification Requirements

4.1 The properties of feather and down filling materials of textile products shall conform to the specification requirements as set forth by IABFLO (International Association of Bedding

and Furniture Law Officials) and the American Down and Feather Section of HFPA (Home Fashion Products Association). See [Table 1](#).

4.2 The wording of claims on the percentage of down present shall not misrepresent the facts directly or indirectly. For example:

4.2.1 A product should not be designated as “100 % Down,” “All Down,” “Pure Down,” or by other terms of similar import unless it in fact contains only down.

4.2.2 A product should not be represented to contain a certain percentage of feathers or down unless it in fact contains the stated percentage as set forth in this standard.

4.3 A product shall not be designated by the name of a waterfowl species unless a minimum of 90 % of that waterfowl plumage contained therein is of that species.

## 5. Significance and Use

5.1 Feather and down filling material intended for this end use should meet all requirements listed in [Table 1](#) of this specification.

5.2 The uses and significance of particular properties and test methods are discussed in the appropriate sections of the specified test methods.

## 6. Sampling

6.1 Tests shall be performed on the feather and down filling materials as they will reach the consumer.

6.2 Use the number of specimens directed in each of the applicable test methods.

6.2.1 If the number of specimens is not specified, use a number of specimens per unit in the laboratory sample, such that the user may expect at the 95 % probability level that the test result is not more than 5 % of the average above or below the true value for the unit in the laboratory sample.

## 7. Test Methods

7.1 *Plumage Cleanliness*—Determine the oxygen number of the filling material as directed in the IDFB Testing Regulations [Part 7](#).

7.2 *Composition of Plumage*—Determine the composition of the filling material as directed in Test Method [D4524](#) or IDFB Regulations [Part 3](#). See [Note 1](#).

<sup>1</sup> This performance specification is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.61 on Apparel. Current edition approved March 1, 2004. Published April 2004. Originally approved in 1986. Last previous edition approved in 1993 as D4522 – 86 (1993)<sup>e1</sup>. DOI: 10.1520/D4522-04.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto: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](http://www.astm.org).

<sup>4</sup> Available from the IDFB (International Down and Feather Bureau), Roederweg 31, D-8750 Aschaffenburg, Germany.