

SAFEGUARDS

SGS CONSUMER TESTING SERVICES

SOFTLINES

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FEATHER & DOWN PRODUCT GUIDES

Natural fill products are breathable, durable, resilient, and provide excellent insulation without a lot of weight. Down and feathers trap air while allowing moisture to escape, allowing products such as comforters to adjust to the amount of heat released by the body. As feather & down products allow air to circulate and offer a wide comfort range, they can be used in all seasons.

Down is the insulating material that clings to the feathers of water fowl. Down is a complex of fiber pieces radiating from the center in every direction. Such construction helps to keep warmth and permits air circulation. Generally, birds that inhabit a colder climate and those that spend more of their lives in icy water, grow a better quality down.

The legal or official definition for "DOWN" on a law label is different in different countries. The legal definition of down allows for down fiber and other components.

- In **Europe & Switzerland**, a "DOWN" product must have a minimum of 60% down.
- In **the USA**, the American Down and Feather Council has indicated that, "DOWN" must contain at least 75% down cluster (Down fibre excluded). According to The International Down and Feather Bureau (IDFB) the definition for Down Cluster, is a group of components including down, nestling down, and plumules. (Down fiber and other components are specifically EXCLUDED.)
- In **Canada**, "DOWN" must contain minimum 75% down clusters & plumules.
- In **Australia & Korea**, "DOWN" must contain at least 75% down clusters (Down fibre excluded).
- In **Japan**, the label for "DOWN" quilts has several groups including: New Gold Label, Excel Gold Label & Royal Gold Label. These groups designate the minimum down content and minimum fill power values.
- In **China**, the Chinese standard (GB/T 17685) allows a tolerance from labeled down: (Down > 40%, $\pm 2\%$); (Down 30%, $\pm 1.5\%$); (Down 10-15%, $\pm 1\%$).

All samples were tested for "Free Formaldehyde" using the Japanese Industrial Standard L1041 (Japanese Law 112) and a smaller number using the American Association of Textile Chemist and Colorist Test Method 112. The Japanese method was used on all samples because most of the regulatory and corporate free formaldehyde limits are determined using the Japanese test or its equivalent. Free formaldehyde was detected in 35 of 180 pcs and 10 pcs failed at the most stringent regulatory standards for free formaldehyde.



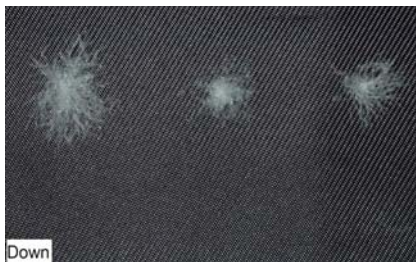
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Evaluation of feather & down products:

Test item	Description	General Test standard
Filling		
Composition	Accurate content of down and/or feather-filled consumer textile articles protects both consumers and dealers against product misrepresentation. The manufacturers and importers verify the accuracy of the content on shipments of fill and/or plumage-filled articles, as the differences in the cost and quality of goods ordered and those actually received may be substantial.	• IDFB Part 3 • ASTM D4524 • CAN/CGSB 139.2 • BS EN 12131 • AS 2479 / AS 4823.3 • JIS L1903 • GB/T 10288 • FZ/T 80001
Species Identification	Classification of goose, duck or chicken species. Goose down will be lighter than Duck down and will therefore retain its loft for longer.	• IDFB Part 12 • AS 2479 • BS EN 12131 • JIS L1903 • GB/T 10288 • FZ/T 80001
Fill Power (Lofting)	Measurement of loft or insulation ability	• BS EN 12130 • JIS L1903 • AS 2479 • IDFB Part 10B • GB/T 10288 • FZ/T 80001
Oxygen Number	Indication of product cleanliness and measurement of organic material	• IDFB Part 7 • CAN/CGSB 139.2 • BS EN 1162 • JIS L1903 • AS 2479 / • AS 4823.2 • GB/T 10288 • FZ/T 80001
Turbidity	Determination of the presence of dust or dirt (organic or inorganic)	• BS EN 1164 • JIS L1903 • AS 4823.7 • IDFB Part 11A • GB/T 10288 • FZ/T 80001

To be continued

Test item	Description	General Test standard
Filling		
Microbiology/Bacteria test	Indication of the hygienic and sanitary conditions of filling materials	• BS EN 1884 • BS EN 12935 • GB/T 10288 • FZ/T 80001
Odor	Evaluation of potential odor problems in a filling material	• Fed std 148a Method 11 • GB/T 10288 • FZ/T 80001
Acidity (pH value)	Measurement of pH factor of down and feathers	• IDFB Part 6 • BS EN 1413 • AS 2479 / AS 4823.4
Fat & Oil Content %	Indication of the amount of natural finish and free foreign extractable matter present or presence of additive finished such as wax or oil	• IDFB Part 4 • BS EN 1163 • JIS L1903 • GB/T 10288 • FZ/T 80001
Moisture Content %	Determination of the moisture content that is concerned with odor and hygiene issue	• IDFB Part 5 • BS EN 1161 • JIS L1903 • AS 4823.1 • GB/T 10288 • FZ/T 80001
Net Fill Weight	Measurement of product mass and filling mass	• BS EN 13088 • IDFB Part 17
Fabric and/ or Filling		
Air permeability	Determination of breathability of the fabric and indication of downproofness	• ASTM D737 • BS EN ISO 9237 • DIN 53887 • ISO 9237 • JIS L1096
Downproof Properties	Assessment the primary cover fabric for penetration by the feather filling	• FTMS 191 Method 5530 • EN 12132-1



SGS offers a wide range of tests on textile and can provide professional advice in choosing appropriate test method. Don't hesitate to contact us for further information.

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WHEN YOU NEED TO BE SURE

