



DOWN JACKET TESTING

Down & Feather Test Information for Apparel (JACKETS, VESTS, etc.)

Down & feather apparel has some unique testing requirements. The following should be considered for a quality assurance program on down jackets.

Normally, one test of a single jacket is not enough to determine the quality of a production lot. IDFB requires that multiple jackets be sampled and tested.

Composition of Filling

- **Content Analysis** This is the most important test. This gives the percentage of down vs. feathers, as well as other components. It is used to determine the label.
- **Specie** Specie should be tested, especially if the label is "GOOSE."
- **Color Separation** If the shell fabric is white or pastel, white down is generally used. Grey down is used for dark fabrics. Some buyers specify maximum allowable grey in white.

Cleanliness of Filling

- **Oxygen** Oxygen determines amount of organic material on the surface of feathers and down. Oxygen should be 10 or less (4.8 or less if the material is labeled "hypoallergenic").
- **Turbidity** General cleanliness, especially dust, is measured by turbidity. Turbidity should be 300mm or more (500 or more, if "superclean or hypoallergenic")
- **Odor Test** Evaluation of product & packaging to determine origin of bad odors in jacket.
- **Fat & Oil, pH** Some countries require fat and oil content and pH for cleanliness evaluation.
- **EN Test** European microbiological analysis of filling material gives added cleanliness detail.

Fill Power (Lofting)

- **Tumble Dry** European fill power conditioning standard "Tumble Dry Conditioning method."
- **Steam** Official IDFB world-wide fill power conditioning method.

Net Fill Weight

- **Total Net Fill** The total weight of the filling material is very important to performance.
- **Panel Detail** Net fill by panel will give separate weights for: hood, collar, each sleeve, left and right front panels, and back panel. (Important for uniform insulation.)

Downproofness of Fabric

- **Air Permeability** Air permeability describes breathability of the fabric & may indicate downproofness.
- **Downproofness** Physical tumbling of the fabric filled with down/feathers determines downproofness.

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