

IDFL NEWS

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FILL POWER UPDATE

IDFL is continuing research in the testing of Fill Power. We have worked on a number of projects during the past year.

Testing Tolerances. How much variance can exist on tests of the same sample?

IDFL believes that when the proper conditioning is done and the proper lab environment exists the variance between different tests should be 5% or less.

This means that if material is actually 500 Fill Power, the material could test 475-525.

Reducing the Test Variance:

Performing multiple tests on different samples of the same lot can help. Results from internal tests should be confirmed by an outside laboratory. Averaging multiple tests will yield more accurate Fill Power results.

Fill Power Methods

How do the different systems compare to each other.

Lorch vs. USA Cylinder. IDFL has tested 1,000 samples on both systems. We found that the two systems give close results -- (see adjoining box.)

Lorch/USA vs JIS (Japanese).

We have completed a few tests on all three systems. We will need more research to determine if the USA/Lorch method can predict JIS results.

Which system does IDFL recommend?

The Lorch system is the IDFB internationally approved system, but the equipment is expensive. The Lorch system removes some human variables, but adds mechanical variables.

If a lab has both the Lorch & USA cylinder, the two systems can be used to cross-check results. The two results can then be compared to determine a final fill power.

If only the USA cylinder is used, IDFL recommends testing in two separate cylinders. This will average high/low results. Confirming internal results by an outside laboratory is also helpful.

Determining Original Fill Power in a Finished Product.

Fill Power claims are based on tests completed soon after the washing and drying process. Fill Power drops during shipping, storage and manufacturing.

IDFL is proposing a method of determining original fill power in finished products. (See next page for details.) Future newsletters

USA Fill Power Cylinder vs. Lorch Machine

<u>Fill Power on USA Cylinder</u>	<u>Number of Samples Tested</u>	<u>Average % Change Using Lorch Machine</u>
Less than 400	102	+ 1.5%
400-499	312	+ 0.3%
500-599	261	(- 0.5%)
600-699	172	(- 2.6%)
Greater than 700	87	(- 4.3%)
AVERAGE	934	(- 0.7%)

The samples were tested under the following lab conditions:

1. Conditioned in a Screen box for 5 days
2. Temperature of 20° C and Humidity of 60-65%

will contain more information.

Testing Fabrics for Downproofness

Three tests are helpful in determining downproofness.

Threadcount. Higher threadcounts normally mean better downproofness, but some yarns in high threadcount fabrics are very fine..

Physical Downproofness. This test simulates use of comforter, jacket or pillow over time. A small pillow is filled with down and feathers and tumbled in a chamber with rubber stoppers.

The chamber and pillow are examined for leakage. The fabric is then rated as follows:

- 5 = Excellent Downproof
- 4 = Pass Downproof
- 3 = Borderline Downproof
- 2 = Fail Downproof
- 1 = NO Downproof

Air Permeability. This test measures the airflow through a fabric. The lower the rating, the less air flows through the fabric. No single standard exists -- each buyer has an internal minimum standard for air permeability that ranges between 6-12.

IDFL has tested material that passes the physical downproof test, but does not pass the air permeability test and vice versa.

Completing all 3 tests will give buyers information to make good decisions about downproofness and compare different fabrics.

Change in California Regulations

Last year the State of California eliminated their own regulations for down and feather products.

Article 5. Plumage Regulations

"Plumage products offered for sale in **California** shall meet the requirements set forth in the United States Federal Trade Commission (FTC) Standard, 16 CFR Ch. 1, Part 253 - Guides for the Feather and Down Products Industry.

FINISHED PRODUCT FILL POWER TESTING

Fill Power is measured immediately after down is dried and separated. Fill Power drops after assembly, shipping and storage.

The current Fill Power procedure attempts to overcome the problem by "conditioning" the down for at least 72 hours.

Even after the conditioning period, the original Fill Power value is often never reached.

Proposed New Conditioning Procedure for Fill Power

IDFL has found that by drying a finished product at low heat in a home dryer, the down regains part or all of its original fill power.

We have also tested Fill Power after rinsing and drying down products. Sometimes rinsing increases Fill Power further.

(The drying and rinsing are procedures that a consumer would do during the life of the product, anyway.)

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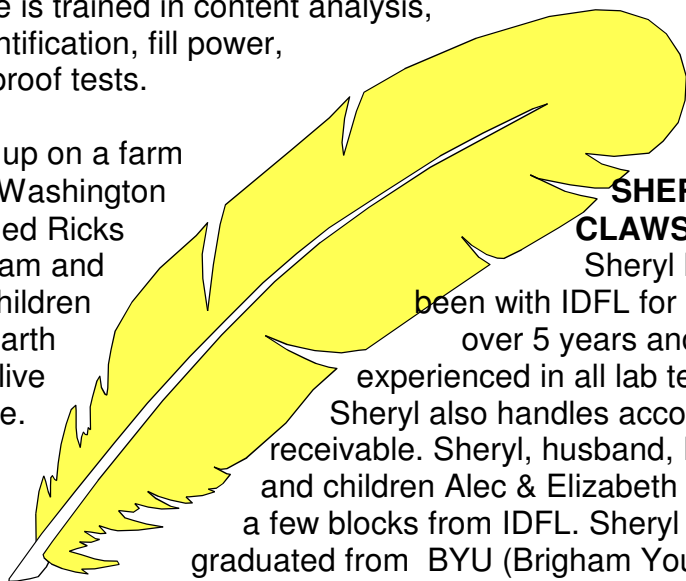
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Employee Spotlights

PAM SWENSON

Pam has been an analyst at IDFL for over five years. She is trained in content analysis, specie identification, fill power, and downproof tests.

Pam grew up on a farm in Central Washington and attended Ricks College. Pam and Dayle, & children Melissa, Garth and Dean live in Salt Lake. Melissa also works for IDFL.



**SHERYL
CLAWSON**

Sheryl has been with IDFL for over 5 years and is experienced in all lab tests. Sheryl also handles accounts receivable. Sheryl, husband, Dan and children Alec & Elizabeth live a few blocks from IDFL. Sheryl has graduated from BYU (Brigham Young University) with a degree in Communications.