

IDFL News

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Fill Power Update

What is USA Fill Power?

The USA uses the official IDFB Fill Power system. The units are recorded in cubic inches. The official IDFB Conditioning Method is steam.

Is there an "IDFL" Fill Power method?

NO, there is not an "IDFL" Fill Power method. IDFL tests all fill power systems as per request of the client including:

- JIS (Japanese)
- EN (European)
- IDFB (International)
- GB & FZ (Chinese)

Which fill power method should be used?

IDFL recommends testing fill power as required by the country where the product is being sold. IDFL also recommends that the IDFB steam conditioning fill power should always be tested in addition to the method required by the country of sale.

How is the Chinese Fill Power Tested?

The two Chinese fill power methods (FZ and GB) require the material to be dried in a laboratory oven for approximately an hour before being placed in a climate controlled room.

What is the label standard in China for Fill Power?

A minimum fill power value is required based upon the percentage of down cluster. Contact IDFL for details.

Are there any problems with GB or FZ testing?

- The main difficulty is that a 70% down product has the same fill power requirement as a 90% down product. 70% down often fails the requirement while a 90% down product always passes.
- The test results can be manipulated by conditioning the sample before sending it to a test laboratory. If two identical samples are tested, one sample directly from a jacket and a second steamed or tumbled before shipment to the lab, the results will be very different.

What is the new Down Power System in Japan?

The Down Power system was developed by the Japanese association.

- Material is steam conditioned.
- A new stainless steel cylinder is used (reduces static electricity).
- The weight of the loading plate is now identical to IDFB.
- The results are given in volume (cubic centimeters per gram).

Which is more accurate – IDFB or European Fill power?

See the article [Evaluation of Fill Power Testing Methods](#).

Fill Power Testing at IDFL

IDFL completes over 10,000 Fill Power tests per year. Below is a summary of IDFL fill power capabilities:

- Database of over 100,000 Fill Power tests.
- Multiple research projects completed.
- Fill Power testing in four different labs
- Our Salt Lake lab has 3 fill power testing areas.

IDFL can test using the following cylinders:

- DFB (Automated)
- IDFB (Manual – Braden Kit)
- Old USA Cylinder
- EN Cylinder (Automated)
- JIS (Japan Traditional Cylinder)
- JDPCA (New Japan Steel Cylinder for Down Power)
- GB & FZ (Chinese Cylinder)

IDFL can condition samples as follows:

Box conditioning (only for down processors on fresh down.)

- Tumble Dry (Required method for Europe)
- Water Rinse (Shows fill power after customer washing)
- Oven Dry (Required method for China GB and FZ)
- Steam Conditioning (IDFB & Japan official method)

Which Fill Power Method is Best?

The most important factor in deciding how to test fill power is the method required by standards of the destination country.

The steam conditioning method is the best method to consistently reproduce the original fill power of down after processing.

The tumble dry and oven dry methods provide additional information about fill power. However, these methods favor local material and results can be influenced by the way the material is shipped and handled before sending to the laboratory for testing.

For More Information

- [IDFL Technical Articles](#)
- [Evaluation of Fill Power Testing Methods](#)
- "Book of Fill Power" IDFL has compiled a book of comprehensive information about fill power including 10 years of IDFL Research. Contact IDFL for ordering.

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