IDFL News

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蓬松度更新

什么是美国蓬松度?

美国采用IDFB官方蓬松度方法，以立方英寸为单位，还原方法为蒸汽还原。

有没有 “IDFL” 蓬松度方法?

不, 并没有 “IDFL” 蓬松度方法. IDFL根据客户要求采用以下不同蓬松度方法:

- 日标 (日 本)
- 欧标 (欧洲)
- IDFB (国际)
- 国标 & 纺织 (中国)

应该采用哪种蓬松度方法?

IDFL 推荐根据产品销售国家的要求来选择蓬松度方法。 IDFL 同时也推荐除销售国家要求的蓬松度方法外还应检测IDFB蒸汽蓬松度。

中国蓬松度方法是如何检测的?

中国有两种蓬松度检测方法（国标和纺织标准），在放入恒温室前需要在烘箱中烘一段时间进行还原处理。

中国标签标准对蓬松度有什么要求?

一定含绒量的羽绒有最低蓬松度要求。具体请联系IDFL。

中国国标或纺织标准蓬松度有什么问题?

- 最大难点是70%绒和90%绒具有相同蓬松度要求。70%绒往往不通过要求而90%绒可以通过标准要求。
- 检测结果可通过送检前对样品进行还原处理来操控。如果送检两个完全相同的样品，一个是直接从羽绒服中取出，另一个是送检前经过蒸汽或滚动烘干处理，那么两个结果会相差很多。

日本最新的羽绒体积方法是什么?

羽绒体积方法是有日本羽绒协会提出.

- 羽绒经过蒸汽还原.
- 使用新的不锈钢测试量筒 (减少静电)
- 压盘重量和IDFB相同
- 结果以数值表示 (立方厘米每克)

哪一个更准确 – IDFB 还是欧洲蓬松度方法?

参阅 蓬松度方法评估

IDFL检测蓬松度

IDFL每年完成上万个蓬松度检测。下面是IDFL蓬松度检测能力简介:

- 数据库中有超过 100,000蓬松度结果
- 已完成多个研究项目
- 4个实验室可进行蓬松度检测
- 我们盐湖城实验室有3个蓬松度测试点。

IDFL 可以使用以下蓬松度仪器测试:

- IDFB (自动)
- IDFB (手动l – Braden 装置)
- 欧洲量筒 (自动)
- 日标 (日本量筒)
- 日本羽绒产品协会 (日本新不锈钢量筒用于羽绒体积)
- 国标 & 纺织标准(中国量筒)

IDFL 可采用以下还原方法:

- 箱式还原 (仅适用于刚从工厂水洗出来的羽绒.)
- 滚动烘干 (欧洲方法)
- 水洗还原 (显示水洗后羽绒蓬松度)
- 烘箱还原 (中国国标和纺织标准方法)
- 蒸汽还原 (IDFB & 日本官方方法)

哪种蓬松度方法最好?

决定使用哪种检测方法的最重要因素是当地的国家标准要求。

蒸汽还原方法是将羽绒还原至最初蓬松度值最好数值一致性最强的方法。

滚动烘干法和烘箱法可提供蓬松度额外参考信息。然而，这次方法检测结果可能会受到样品寄送方式以送检前处理的影响。

更多信息

- IDFL 蓬松度技术文章
- 蓬松度方法评估
- “蓬松度解析” IDFL已经编纂一本涵盖过去10多年关于蓬松度研究结果的书。如需订购，请联系IDFL。

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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)
- IDFB (International)
- EN (European)
- 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:

- IDFB (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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