



CHINA (GB/T) AND IDFB FILL POWER METHODS FAQ

Q. What are the main differences between GB/T and IDFB Fill Power methods?

A. GB/T and IDFB Fill Power Methods differ in the following areas:

1. Conditioning Method
 - IDFB official method is Steam
 - GB/T official method is heating down to 50°C for 60 minutes or 70°C for 45 minutes depending on the type of sample.
2. Cylinder
 - IDFB cylinder: diameter 290 mm x height 500 mm, plate mass 94.25g
 - GB/T cylinder: diameter 240 mm x height 600 mm, plate mass 68.4g
3. Conditioning Time
 - IDFB 48 ± 24 Hours
 - GB/T 24 Hours
4. Test Amount
 - IDFB 30 g
 - GB/T 28.4 g or 28.5 g depending on sample type

Q. Do the differences in methodology affect the Fill Power result?

A. Yes. The two methods will yield different Fill Power results. Table 1 illustrates the difference in Fill Power results using the two methods. The IDFB method seems to be more effective at helping down achieve its full Fill Power potential. Research is on going to find the most effective fill power method.

Q. Can GB/T Fill Power results be compared to other Fill Power results using the conversion of 28.77?

A. No. The published conversion in the GB/T standard is a volumetric conversion only. It does not factor in the differences in conditioning method, cylinder type, conditioning time or testing amount. The 28.77 conversion strictly converts the result from cm to inches.

Q. How can I convert GB/T Fill Power results to IDFB Fill Power results?

A. The approximate factor difference is: **GB Fill Power Results x 40**. This new result approximates IDFB Fill Power results when testing using GB/T Fill Power method. Research is on going.

For example: GB/T yields 15 cm. To convert to IDFB: 15 cm x 40 = 600. Again this is an approximation, for more accurate GB/T or IDFB results the sample should be tested using the appropriate method.

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TABLE 1

ORIGINAL CONTENT RESULTS

Down Cluster	:	76.0
Down Fiber	:	8.7
Feather Fiber	:	4.4
Waterfowl Feathers	:	6.2
Broken / Damaged Feathers	:	0.0
Quill	:	0.0
Landfowl	:	3.0
Residue	:	1.7

ORIGINAL FILL POWER RESULTS

Tumble Dry		Final
USA Cylinder	:	520
IDFB/Lorch Cylinder	:	560

Steam		Final
USA Cylinder	:	600
IDFB/Lorch Cylinder	:	600

NEW FILL POWER RESULTS

Steam		24 Hours
USA Cylinder	:	590
IDFB/Lorch Cylinder	:	615 155
GB Cylinder (converted)	:	20.5 cm 340.4 cm ³ /g

GB/T 70°C 45 minutes		24 Hours
USA Cylinder	:	455
IDFB/Lorch Cylinder	:	484 122
GB Cylinder (converted)	:	15.8 cm 262.5 cm ³ /g

GB/T 50°C 60 minutes		24 Hours
USA Cylinder	:	460
IDFB/Lorch Cylinder	:	492 124
GB Cylinder (converted)	:	16.0 cm 265.4 cm ³ /g