



# Comparison of IDFL 20-1 Downproof/Fillproof Test with the Federal Standard FTMS 191-5530

The Rotating Tumble Box method IDFL uses for determining downproofness of fabric is based on the Federal Standard 191-5530 method from 1956.

In 1978 the American Feather and Down Association (AFDA) in Sacramento, California modified the FTMS 191-5530 in the "Association Technical Bulletin Number 23." IDFL began using the AFDA modified method in 1978 and took responsibility for the maintenance of the modified method in 1993. The old AFDA no longer exists. IDFL has made a few minor modifications to the method and added more detailed reporting requirements. The most current version of the test method is dated April 2014.

## Advantages of the IDFL 20-1 method vs. the original FTMS 191-5530:

- 1. More Accurate Evaluation System.** The FTMS method used a "Satisfactory" or "Unsatisfactory" rating based upon a single photo. This evaluation is very subjective and has wide interpretation. For example, Everest Textile in Taiwan (according to their web site - <http://bit.ly/aLilWK>) states that more than 3 fibers escaping a fabric is "Unsatisfactory" while other labs allow up to 20 fibers to escape before rating a fabric "Unsatisfactory." The IDFL 20-1 method requires counting all escaped filling and gives a specific rating system based upon the number of escaped or protruding filling pieces.
- 2. Elimination of Stitched Middle Seam.** The FTMS method required an unspecified stitched seam to run through the middle of the test pillow creating two chambers. The seam may or may not represent the actual stitching of the final finished product and may unnecessarily allow filling material to escape through the seam.
- 3. Reduced Testing Time.** IDFL 20-1 method reduces tumbling time due to the additional stoppers which help offset the enhanced testing time.
- 4. More Accurate Counting of Escaped Filling Material.** The FTMS method observed only escaped filling on the surface of the pillow that has penetrated the fabric and compares this with an old photograph to subjectively rate the downproof. The IDFL 20-1 method counts all material that is protruding through or escaped from the fabric including all filling material that is found on the interior surface of the tumbling box and on the silicone stoppers. This provides a much more complete evaluation of the performance of a fabric's downproofness.
- 5. Flexibility in Filling Material Tested.** The FTMS method allowed only a 40% down / 60% feather filling mix. The IDFL 20-1 method allows the client to specify alternate plumage filling materials to be tested (e.g. 75% down / 25% feather, etc.). The IDFL 20-1 method also allows non-plumage filling materials to be tested (e.g. polyester).
- 6. Flexibility to Complete or Not Complete Laundering.** The FTMS required an impractical and very uncommon laundering method in all cases. Generally accepted methods of laundering is optional in the IDFL 20-1 method.
- 7. Flexibility in Laundering Method.** The FTMS allowed only the laundering method FTMS 191-5556 which may not be practical for many labs. The IDFL 20-1 method recommends one of the home laundering methods contained in the AATCC Technical Manual. The IDFL 20-1 method allows flexibility in the number of wash cycles repeated before testing. The IDFL 20-1 method also allows alternative laundering methods, which must be disclosed in the report. Therefore, ISO, European, Japanese or other standard laundering methods may be used.
- 8. Downproof/Fillproof Testing for Finished Products.** The FTMS assumed that only swatches of bulk fabric are used for the downproof test. The IDFL method allows that certain finished products or sections of finished products may be tested (IDFL 20-3 and 20-2).

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