



Downproofness - International Rotating Box

Brief Test Description

(Adapted from obsolete FTMS 191-5530)

1. Description of Test Apparatus

The tumbler is a 45.5 centimeter plastic box with door on one side. A motor rotates the box at a speed of 48 ± 2 revolutions per minute. Twenty-four No. 6.5 solid silicone stoppers are used in the box.

2. Sample Pillow Specifications

<i>Finished Size of Test Pillow:</i>	20 cm X 30 cm
<i>Seam Style:</i>	"SSe" (from ASTM D6193). Also known as a "French seam."
<i>Stitch Length:</i>	Approx. 5 stitches/cm
<i>Stitch Style:</i>	"Type 301" (from ASTM D6193)
<i>Needle Size:</i>	90/14
<i>Thread:</i>	29 Tex
<i>Mass of Fill Material:</i>	35 grams
<i>Mixture of Fill Material:</i>	Specified by customer

3. Testing Sample Pillow

- Clean test pillow is placed in clean tumbler box.
- Box rotates for 30 minutes.
- All fibers, feathers and clusters are collected from surface of pillow, tumbler box and silicone stoppers.
- Collected material is evaluated and counted.

4. Reporting of Results

The numerical rating (see Chart 1) is based upon the amount of fibers, down, and/or feathers that escaped or are protruding through the fabric after the 30 minute tumbling period. *Note: only fibers > 4 mm are counted.*

Rating	Fibers (> 4 mm)	Feathers
5	<5	1 small (<15 mm)
4	6 – 10	2
3	11 – 20	3 – 4
2	21 – 30	5 – 7
1	>31	>8

Chart 1. Downproof rating scale. Based on the number of fibers and feathers escaped.