



RESISTANCE TO DENIM DYE TRANSFER FOR SEAT TRIM MATERIAL

Application

This procedure is used to determine the resistance of leather and vinyl to denim dye transfer.

Apparatus and Materials Required

Martindale abrasion machine with specimen holder weights

Rotational speed of outer pegs	= 47.5 ± 2.5 rev/min
Ratio of speeds outer pegs : inner pegs	= 32:30 or 16:15
Total stroke of outer pegs	= $60.5 \text{ mm} \pm 0.5 \text{ mm}$
Total stroke of inner pegs	= $60.5 \text{ mm} \pm 0.5 \text{ mm}$
Working area of specimen holder	= 645 mm^2
Nominal pressure on test specimen	= 12 kPa
Lissajous figure stroke	= $60 \pm 1 \text{ mm}$

Available from:

SDL Atlas, LLC
3934 Airway Dr
Rock Hill, SC 29732-9200 USA
Tel: 1 (803) 329-2110
Fax: 1 (803) 329-2133
www.sdatlas.com

OR

James H. Heal & Co. LTD
Richmond Works
Lakeview
Halifax
United Kingdom
www.james-heal.co.uk/

Test Fabric Denim 2550Y

Available from: Test Fabrics, Inc.
415 Delaware Ave
West Pittston, PA 18643
USA
Tel: 1 (570) 603-0432
Fax: 1 (570) 603-0433
Email: info@testfabrics.com
<http://testfabrics.com>

Syringe 10 mL volume minimum

Backing for specimen and test fabric denim

Woven wool felt mass $750 \pm 50 \text{ g/m}^2$ and approximately $2.5 \pm 0.5 \text{ mm}$ thick
SDL Atlas USA material code is M235 E or M235 E1

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**Recommended Cleaning Agents**

See FLTM BN 112-08

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.

Sample and Test Conditioning**Sample Conditioning**

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 ± 2 °C and $50 \pm 5\%$ relative humidity for not less than 24 h prior to testing and tested as soon as possible after removing from the specified conditions. Materials to be conditioned are the submitted material for evaluation and the 2550Y test denim.

Sample Size Cut two circular specimens 140 mm in diameter from the provided sample and 2550Y test denim.

Procedure

1. Mount the conditioned specimens over the backing felt on the machine tables with the A surface facing up.
2. Lay the conditioned denim specimens in a flat, non-absorbable container/dish. Wet each of the 140 mm denim specimens with 10 mL of room temperature (23 ± 2 °C) deionized water using a syringe, swirling outwards from the center to insure even water distribution, over a time period of approximately 30 seconds. Do not wring out the denim.
3. Mount the wetted denim in the pilling holders with a 90 mm diameter piece of dry felt backing so that the blue dyed yarns are interfacing with the sample to be tested.
4. Clamp the denim holders on the moving plate and load the holders to achieve the specified pressure of the denim of 12 kPa on the specimens.
5. Turn on the Martindale apparatus and run for 1000 cycles.
6. Place tested specimen in a cabinet or drawer that will shield it from light until the specimen is dry.
7. Evaluate one test specimen per evaluation procedure (below) within 24 hours of completing step 6. Report AATCC rating as "stain before cleaning" value.
8. Clean half of the second specimen using a recommended cleaning agent and procedure outlined in FLTM BN 112-08. After cleaning, store specimen in a cabinet or drawer that will shield it from light for 24 hours
9. After 24 hours, evaluate the cleaned section of specimen per evaluation procedure. Report AATCC rating as "stain level after cleaning" value.
10. Once evaluation is completed, store tested specimens in a cabinet, drawer, or envelope that will shield the specimens from light. Specimen can be stored at ambient temperature. These specimens may only be used as reference for 30 days.

Evaluation

Visually assess the color difference between the test specimen subjected to dye transfer and the control specimen using the appropriate change in color scale in accordance with AATCC Evaluation Procedure 2. Evaluation should be made in the center of the specimen and avoiding the darker edge of the tested area.