



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

Apparatus

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 mm ± 0.5 mm
Total stroke of inner pegs	= 60.5 mm ± 0.5 mm
Working area of specimen holder	= 645 mm ²
Nominal pressure on test specimen	= 12 kPa
Lissajous figure stroke	= 60 ± 1 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.sdlatlas.com

OR

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

Test Fabric - Denim

Levi's 505 Regular Fit Jeans – "Rinse" Color

Available from: Levi's Website
www.levi.com

Amazon
www.amazon.com

Storage Bags

Uline Amber UV Bags S-11170

Available from: Uline Website
<https://www.uline.com>

Felt Backing

Woven wool felt mass 750 ± 50 g/m² and approximately 2.5 ± 0.5mm thick
SDL Atlas USA material code is M235 E or M235 E1

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Documents

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Document Sharing Hub

**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.

Denim Validation to Master

L value = 16 +/- 3

Method: FLTM BI 109-02

Stiffness Direction A = 53 +/- 15

Stiffness Direction B = 49 +/- 15

Method: FLTM BN 157-02

Direction A is the long length of the pant leg.

Direction B is the cross width of the pant leg.

Sample Size Cut two circular specimens 140 mm in diameter from the provided sample and four Levi 505 test denim specimens 140 mm in diameter. Levi specimen must be taken from flat areas without sewing, belt loops, zippers, pockets, or rivets.

Procedure

1. Mount the two conditioned specimens over the felt backing on the machine tables with the A surface facing upwards.
2. Mount the two validated denim specimen in the pilling holders with a 90 mm diameter piece of dry felt back so that the blue dyed yarns are interfacing with the sample to be tested.
3. Clamp the denim holder on the moving plate and load holders to the specified pressure of 12 kPa between the denim and the specimen.
4. Turn on the Martindale apparatus and run for 2500 cycles in the large lissajous pattern.
5. When the machine stops remove the weight and pilling head and mount a new sample of denim on the pilling head according to steps 2 and 3.
6. Turn on the Martindale apparatus and run for 2500 cycles in the large lissajous pattern.
7. Remove the specimen and place both into a Uline S-11170 bag.
8. Evaluate one test specimen per evaluation procedure (below) within 1 hour of completing step 7. Report AATCC rating as "stain before cleaning" value.
9. Clean half of the second specimen using a recommended cleaning agent and the procedure outlined in FLTM BN 112-08. Store the specimen in an area void of light.
10. After 24 hours, evaluate the cleaned section of the specimen per evaluation procedure below. Report AATCC rating as "stain level after cleaning" value.
11. Once evaluation is completed, store the tested specimen in the Uline S-11170 bag. The denim used for the test should remain with the tested samples but do not need to be stored in the Uline S-11170 bag. Specimen should be stored at ambient temperature. These specimens may only be used as reference for 30 days.

Evaluation

Refer to FLTM BI 109-01 Section 3.2.4. Evaluate the specimen in daylight (D_{65} per ISO/ CIE 23603) at a 45° angle. Use the AATCC Procedure 2 to rate the specimen for both "stain before cleaning" and "stain level after cleaning".

Report

Report the stiffness and L value of every pair of Levi 505 jeans that denim specimens are taken from. Report the rating of both "stain before cleaning" and "stain level after cleaning". Report the brand and trade name of the cleaner used.