

BEARDING AND FROSTING TEST FOR AUTOMOTIVE CARPETS**Application**

This procedure is used to determine the resistance to bearding and frosting of automotive carpeting.

Apparatus Required**Flexing Machine**

Flex and Fold Tester or equivalent device which has a stroke adjustment of 63 - 100 mm, a reciprocating rate of 37 double strokes per minute, equipped with a reciprocating arm drilled and tapped as shown in Illustration 1.

Source: Custom Scientific Instruments
Division of Atlas Electric Devices
13 Wing Drive
Cedar Knolls, N.J. 07927
ph: 973-538-8500
fax: 973-984-6793

Mounting Base

Base for holding carpet specimen. (See Illustration 2.)

Clamp Bars

Two clamps to hold mounting base. (See Illustration 3.)

Weight

680 g steel plate 150 x 100 mm. (See Illustration 4.)

Carrier

100 x 150 x 12 mm wood platform for attaching card clothing. (See Illustration 4.)

Card Clothing

22 mm height - 3 rib set, 6 rows, 11 Noggs #30 wire 5 ply rubber backing. (See Illustration 4.)

Source: Howard Brothers Manufacturing Company
Auburn, Ma
ph: 508-793-7070

Date	Action	Revisions
2001 10 31	Revised	Editorial – no technical change A. Cockman
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Bolts

Four 1/4 in diameter bolts, 4 in long. (See Illustration 4.)

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

1. Cut a carpet sample 100 x 200 mm with the long dimension in the across machine direction of the carpet.
2. Mount the sample on the mounting base, with the long dimension in the direction of the stroke. Staple the sample on each side in several locations. Assure that sample lies flat and is rigid.
3. Position carrier on reciprocating arm with the 680 g weight, as shown in Illustration 5. Assure that carriage bolts do not bind in holes in reciprocating arm, preventing carrier from wobbling, or "floating" during operation.
4. Position mounting base with carpet sample on Flex and Fold Tester with two clamp bars. Center carpet sample under card clothing at middle of stroke.
5. Set the machine for 88 mm stroke.
6. Start tester and test for 100 cycles.
7. At the end of test, evaluate sample for degree of bearding and frosting according to engineering specification requirement.

Procedure for Breaking In Card Clothing

New card clothing must be broken in to remove burrs and sharp edges on wire ends, by operating 2,000 cycles using a carpet specimen of any BCF nylon loop pile carpeting. A second carpet specimen must then be tested and compared to a specimen tested with previous card clothing to assure that results are similar. Card clothing and carrier must be replaced whenever the bearding results on a control carpet become less severe than the original control carpet sample that was run after the breaking-in period. If card clothing bristles become too flexible or base shows evidence of delaminating, card clothing should be replaced. No card clothing brush should be used after 10,000 cycles.

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.

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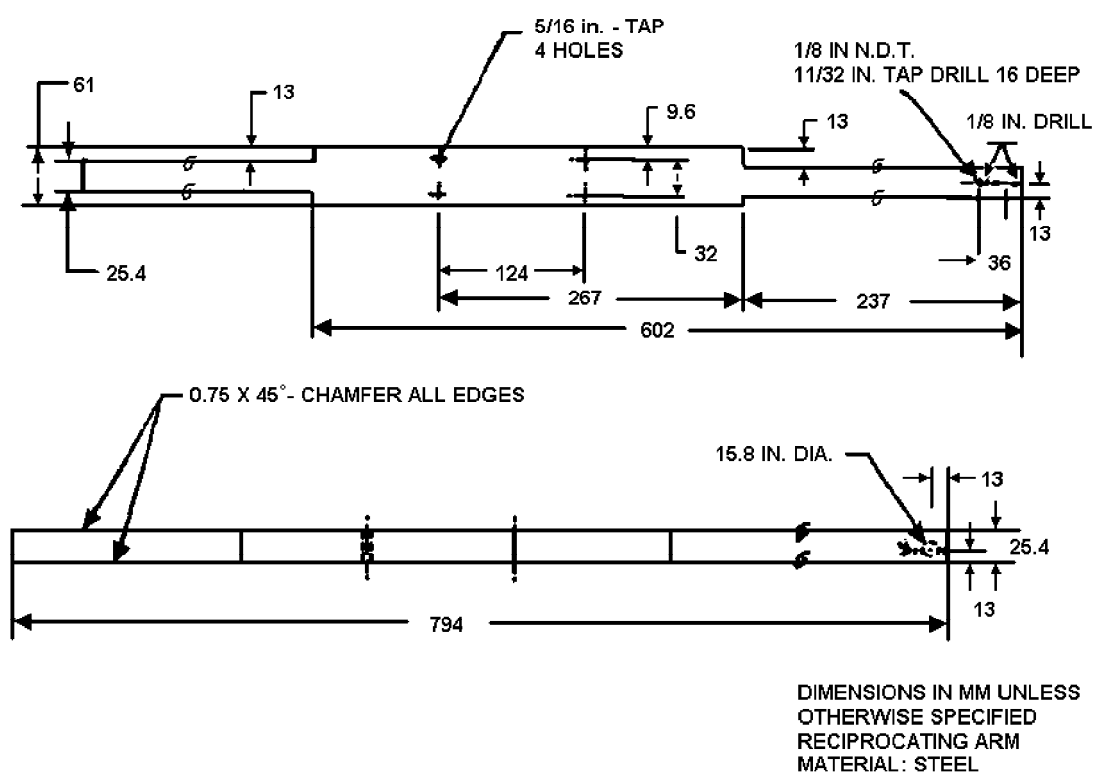


Illustration 1