GM WORLDWIDE ENGINEERING STANDARDS	Test Procedure	GMW15717

Coating Adhesion for Leather

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. This standard describes a test procedure for evaluating topcoat adhesion properties of finished leather. This standard describes a scrape and tape procedure.

1.2 Applicability. Applies to all seating, steering wheel, and Instrument Panel (IP) leathers.

1.3 Remarks. Not applicable.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

None

2.3 Additional References. None.

3 Resources

3.1 Facilities.

3.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.2 Equipment.

3.2.1 Pressure Sensitive Adhesive Tape. Tape 3M 610 has been found suitable for this testing. Tape made by another manufacturer may be used if it is found to be equivalent.

3.2.2 Razor knife.

3.2.3 Pencil eraser.

3.2.4 Small brush.

3.3 Test Vehicle/Test Piece. Not applicable.

3.4 Test Time.

Calendar time:	0 d
Test time:	½ h
Coordination time:	½ h

3.5 Test Required Information. Not applicable.

3.6 Personnel/Skills. Personnel trained in accordance with the laboratory accreditation and Standard Operating Procedure requirements

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4 Procedure

4.1 Preparation. Not applicable.

4.2 Conditions.

4.2.1 Environmental Conditions. Not applicable.

4.2.2 Test Conditions. Deviations from the requirements of this standard shall have been agreed upon. Such requirements shall be specified on component drawings, test certificates, reports, etc.

4.3 Instructions.

4.3.1 Use sample of leather material at least 150 mm × 150 mm in size from three (3) areas of the hide.

4.3.2 Lay the sample over the square edge of a table or block, then scrape the topcoat in one direction along the edge using the razor knife until the russet is exposed. The scraped line should be 50 mm long and 1 mm to 2 mm wide.

4.3.2.1 Repeat this step two (2) times by rotating the sample at a 45 degree angle for a total of three (3) scrapings on the test specimen.

4.3.2.2 Remove any detached flakes of coating with a brush.

4.3.3 Only use tape that does not exhibit deterioration. Before performing the first test, remove the entire length of tape from the dispenser where the adhesive may have been previously exposed to air for longer than 15 minutes and discard it.

4.3.3.1 If using 3M 610 tape, the roll should be a light amber color with no gaps between tape layers. If the tape is a dark amber color and/or if there are gaps in the roll between the layers of tape, do not use it. Those conditions indicate deterioration of the tape.

4.3.4 Place the sample on a flat surface, then dispense a strip of tape approximately 100 mm in length. Apply the tape perpendicular to the center of a scraped line and bisecting the tape with at least 40 mm of tape adhered to one (1) side of the scraped line and 20 mm adhered on the opposite side. The remaining 40 mm will provide a loose tail to grasp when removing tape (see Figure 1).

4.3.4.1 Using sufficient rubs of the pencil eraser, affix the tape firmly to the leather surface and remove air bubbles.

4.3.4.2 Repeat this step on the other two (2) scraped lines.

4.3.5 After 10 s, grasp the tail of the tape between thumb and forefinger and pull upward and away from the user with a rapid jerking motion perpendicular to the scribed line.

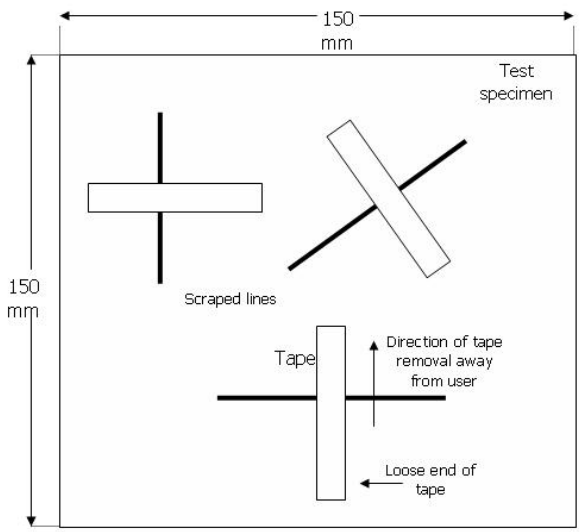

Figure 1: Procedure Layout

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