GM WORLDWIDE ENGINEERING STANDARDS	Test Procedure	GMW3025

Sag and Slide Test

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. The test is used to determine the no-sag properties of sealing compounds, such as seam sealing compounds, underseal, etc., and adhesives on vertical surfaces.

- Sliding: The bead moving down the panel from the point at which it was applied to the substrate.
- Sagging: The deformation of the bead from original shape.

1.2 Applicability. Adhesives/Sealers.

1.3 Remarks. None.

2 References

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

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW15477

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 Scraper.

3.2.2 Circulation oven capable of maintaining a set temperature within ± 3 °C.

3.2.3 Cartridge gun (capable of being heated).

3.2.4 Cartridge nozzle with respective opening diameter.

3.2.5 Spatula.

3.3 Test Vehicle/Test Piece. The test sheet metal shall consist of flat and burr-free original body sheet metal or commercially available test panel from approved source.

3.3.1 For Paint and General Assembly Applications. The surface quality of the test sheet metal shall be selected to correspond to the information on part drawing or in material specifications.

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3.3.2 For Body Shop Applications. The surface quality of the test sheet metal shall be according to the relevant material specification.

Test panel dimensions and preparations according to GMW15477.

Corrosion protection oil/lubricant as required in the relevant material specification.

3.4 Test Time.

Calendar time:	1 d
Test time:	2 h
Coordination time:	3 h

3.5 Test Required Information. Not applicable.

3.6 Personnel/Skills. Personnel shall be trained in normal laboratory operations and safety.

4 Procedure

4.1 Preparation.

4.1.1 For Paint and General Assembly Applications. The sealing compound/adhesive being tested shall be stirred vigorously with a spatula for one minute before the start of the test.

The material shall be conditioned to 23 °C ± 5 °C.

4.1.2 For Body Shop Applications. Test material application parameters shall be according to the relevant material specification.

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.

4.2.2.1 The material shall be conditioned to 23 °C ± 5 °C.

4.2.2.2 The baking of the sealing compound/adhesive shall be carried out according to the relevant material specification.

4.3 Instructions.

4.3.1 Application of Sealing Compound/Adhesive.

4.3.1.1 For Paint and General Assembly Applications. Fill tube with sealing compound/adhesive to be tested. Install application tip on the end of the sealer-filled tube. Trim tip so that opening is near 3 mm. Install the filled tube in the air gun that will be used for application. Set air pressure to 400 kPa ± 20 kPa (kilopascal). Dispense a sufficient quantity of sealing compound into the back of the scraper (see Figure 1).

Immediately after dispensing the sealing compound/adhesive into the back of the scraper, draw down beads the full length of the sheet metal (according to 3.3).

4.3.1.2 For Body Shop Applications. Sealing compound/adhesive delivered in cartridges shall be applied with the aid of a cartridge gun equipped with a nozzle with the respective opening diameter. Dimensions of the sealing compound/adhesive being tested shall be according to GMW15477 or the relevant material specification. Panel configuration shall be unconstrained.

4.3.2 Testing of Sag and Slide. Immediately after application of the sealing compound/adhesive, store the test panel for 24 h at 23 °C ± 5 °C. During storage, the panel shall be positioned vertically so that the length of the sealer/adhesive is in a horizontal position. (For Paint and General Assembly applications, the smallest bead shall be at the top.)

After storage for 24 h at 23 °C ± 5 °C, the test piece shall be baked at minimum and maximum bakes according to the relevant material specification.

During baking, the panel shall be positioned vertically so that the length of the sealer/adhesive is in a horizontal position.

After cooling of the test piece at 23 °C ± 5 °C, the applied sealing compound/adhesive shall be evaluated.

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