



Bonded Lips, Extruded Profiles, Extrusions and Encapsulations for Vehicle Glazing

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 specification defines the requirements which shall be fulfilled in the case of bonded lips, extruded profiles, extrusions and encapsulations for vehicle glazing, including the sunroof.

1.2 Applicability. If the production process for released glazing bonded lips, extruded profiles, extrusions and encapsulations is modified, this shall be announced beforehand.

1.3 Remarks. Bonded lips, extruded profiles, extrusions and encapsulations should ensure an optimum join between glazing and body, reduce noise, prevent dirt accumulation and cover adhesive beads, welding seams and welding points.

2 References

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

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW3600	GMW14650	GMW15671	GMW16005
GMW14124	GMW15195	GMW15960	GMW16685

2.3 Additional References.

- CG180 5-Phase Document
- GM Exterior Materials Engineering Material Decision Trees for Noise Abatement Strategy
- GM Security Guidelines. <https://gmweb.gm.com/HR/Security/Pages/FutureGuide.aspx>
- International Commission on Illumination (CIE) Lab Color Coordinates

3 Resources

3.1 Facilities. According to the relevant test procedure.

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. According to the relevant test procedure.

3.2.1 Digital Camera.

3.2.2 Force Gauge.

3.2.3 Magnifying Glass.

3.2.4 Scale (mm).

3.2.5 Test Fixture to hold hose set in vehicle position.

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3.2.6 Thermal Chamber large enough to minimally contain one (1) test fixture (prefer to contain at least 3). The chamber should also meet the following:

- Temperature Range (-40 °C to +95 °C) and continuously adjustable.
- Controlled humidity.
- Recirculating air temperature cabinet.
- Test room, suitable for the execution of the test.
- Permissible temperature accuracy: ± 3 °C.
- Explosion proof.

3.3 Test Vehicle/Test Piece. According to the relevant test procedure.

3.3.1 Material. The required material quality of the bonded lips, extruded profiles, extrusions and encapsulations are also designated by the relevant material specifications in the drawing.

3.3.2 Unless otherwise specified, three (3) samples of components, or systems, shall be tested.

3.3.3 All components/systems used in testing shall be within drawing specifications and have supporting data prior to start of test.

3.3.4 ALL test samples **MUST** be conditioned per 4.1.1.

3.4 Test Time.

Calendar time: 40 d

Test hours: 576 h

Coordination hours: 72 h

3.5 Test Required Information.

3.5.1 GM Validation is to be notified of test failures within a 24 h period of occurrence.

3.5.1.1 Supplier to develop a 5-Phase Document (CG180) for all test failures.

3.5.2 Product Security. Security protocol for the test vehicle must be followed per GM Security Guidelines.

3.6 Personnel/Skills. Not applicable.

4 Procedure

4.1 Preparation. Not applicable.

4.2 Conditions. Evaluation Conditions:

Viewing Range: Outstretched arm

Viewing Angle: 90 to surface of glazing

Intensity of Illumination: (800 to 1300) lx

Assessment Time: (5 to 10) seconds

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 Requirements to System, Component/System, Component. Bonded lips, extruded profiles, extrusions and encapsulations are elements of the glazing assembly and consequently appear in the drawing.

4.4 Assessment Areas A, B, C. Figures 1 thru 3.

4.4.1 Assessment Area A. Surface within immediately visible range.

4.4.2 Assessment Area B. Surface beneath glazing and not within immediate field of view.

4.4.3 Assessment Area C. Surfaces outside field of vision or are covered after assembling.

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