



Elastomeric (Butyl) Tape, Weatherstrip

1 Scope

1.1 Material Description. This specification covers the requirements for an elastomeric adhesive used to attach Ethylene Propylene Diene Monomer (EPDM) weatherstrips to painted body surfaces.

1.2 Symbols. Not applicable.

1.3 Applicability. EPDM weatherstrips to painted body surfaces.

1.4 Remarks. The material is a pressure sensitive extruded adhesive tape which conforms to specified dimensional tolerances. The tape is to be black in color and the adhesive surface is to be protected by a removable release liner. The tape shall demonstrate good adhesion to GM approved paint systems and weatherstrip materials. The adhesive shall be resistant to humidity, heat, solvent and weather exposure.

2 References

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

2.1 External Standards/Specifications.

ASTM D217	ASTM D412	ASTM D1475	ASTM D2369
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2.2 GM Standards/Specifications.

GMW3059	GMW14270	GMW15201	GMW15735
GMW14124			

2.3 Additional References. None.

3 Requirements

3.1 Stability (GMW15735). Material conditioned using potential storage conditions must be capable of passing all the requirements of this specification. See Table 1.

3.1.1 Elevated Temperature Stability. As shipped, test per GMW15735 Elevated Temperature Stability. No separation or caking.

3.1.2 Low Temperature Stability. As shipped, test per GMW15735 Low Temperature Stability, Cycle A. No separation or caking.

3.1.3 Storage Stability. The shelf life of the tape in as shipped condition shall be 180 days at a temperature not to exceed 40 °C. Shelf life of the material commences upon the receipt of the material from the manufacturer.

Table 1: Material Requirements

Properties	Test Values	Test Methods
Specify Gravity	1.05 sp.g to 1.15 sp.g	ASTM D1475
Solids	99% minimum	ASTM D2369
Cone Penetration	70 dmm to 90 dmm	ASTM D217, 150 g load
Tensile Strength	70 kPa minimum	ASTM D412, Die C
Elongation	800% minimum	ASTM D412, Die C

Properties	Test Values	Test Methods
Creep Test 100 g ^{Note 1}		GMW15201; Static Shear Test Procedure; see 3.3.4
For Tape 0.5 mm thick	0.5 mm maximum movement	
For Tape 1.0 mm thick	1.0 mm maximum movement	
For Tape 1.5 mm thick	1.5 mm maximum movement	
For Tape 2.0 mm thick	2.0 mm maximum movement	
For Tape 2.5 mm thick	2.5 mm maximum movement	
For Tape 3.0 mm thick	3.0 mm maximum movement	
Initial Peel Test ^{Note 2}	13.5 N/cm	GMW15201; see 3.3.1.7; Peel Tests, 90 Degree
Peel Test ^{Note 2} after Exterior Thermal Cycle	13.5 N/cm	GMW14124, Cycle C (2X) GMW15201; see 3.3.1.7; Peel Tests, 90 Degree

Note 1: Values pertain to 12.7 mm width tape tested on 44 to 47 Shore D Polyvinyl Chloride (PVC).

Note 2: Values pertain to 25.4 mm width tape, tested on production EPDM weatherstrip parts.

3.2 All materials supplied to this standard must comply with GMW3059, **Restricted and Reportable Substances**, including the requirement to submit a full material composition disclosure to GM via the International Material Data System (IMDS) or via a completed GMW3059 report form.

4 Manufacturing Process

Not applicable.

5 Rules and Regulations

5.1 Legal Regulations. All materials must satisfy applicable laws, rules, regulations and recommendations valid in the country of usage.

5.2 Language. In the event of conflict between the English and domestic language, the English language shall take precedence.

5.3 Inspection and Rejection. Samples of components or materials released to a GM material specification shall be tested for conformity with the requirements of this material specification and approved by the responsible Engineering department prior to commencement of delivery of bulk supplies.

A new approval must be received for any changes, e.g., properties, manufacturing process, location of manufacture, etc. If not otherwise agreed, all testing and documentation normally required for initial release must be completed.

It is the responsibility of the supplier to inform the customer in a timely manner, without solicitation, and to include documentation of all modifications of materials and/or processes and to apply for a new release.

5.4 Material Safety Data Sheets/Safety Data Sheets (MSDS/SDS). For new product submissions, or when a change in chemical composition of an existing product has occurred, a complete copy of the Material Safety Data Sheet/Safety Data Sheet must be submitted in compliance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) requirements or other country-specific MSDS/SDS requirements.

6 Approved Sources

Materials supplied to this specification must be approved by General Motors.

A list of approved materials can be found in the GM Materials Approved Source List. To access this list, reference GMW14270 for latest location. This GM material file is provided to third parties to reduce redundant testing of