



Adhesive, Glass Adhesion Promoter, Pressure Sensitive Adhesive Tapes

1 Scope

This specification covers adhesion promoters suitable for bonding Pressure Sensitive Adhesive Tapes (PSAT) to automotive glass for mounting light weight hardware.

1.1 Material Description. Adhesion promoters approved to this specification are one-step, moisture-cure/sensitive, salinized primers used to promote adhesion of automotive glass with pressure sensitive adhesive tapes. Along with automotive glass, other substrates for priming may include steel, aluminum, brass, e-coated metal, glass fabric and some plastics.

1.2 Symbols. Not applicable.

1.3 Applicability. Application use of this adhesion promoter include lightweight hardware/trim bonded to automotive glass, e.g., rain sensors/lightweight brackets and emblems.

1.4 Remarks. None.

2 References

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

2.1 External Standards/Specifications.

ASTM D1475	ASTM D3278	SAE J1864	SCAQMD 443.1
ASTM D2834	EPA TM 24		

2.2 GM Standards/Specifications.

GMW3059	GMW14444	GMW16853
GMW14270	GMW15735	

2.3 Additional References. None.

3 Requirements

3.1 Substrate Adhesion. Adhesion to application substrates must be verified prior to primer material selection. Refer to the program responsible GM engineering team for application specific adhesion requirements.

3.2 Emissions Testing of Interior Materials and Parts. For all Code E designated parts per GMW14444, reference GMW16853 for emissions testing of interior materials and parts.

3.3 Material Properties. See Table 1.

Table 1: Material Properties

Property	Test Method	Value	
		Type I	Type II
Color	Visual	Clear	
Density	ASTM D1475	0.86 kg/L to 0.92 kg/L	0.7 kg/L to 0.9 kg/L
Volatile Organic Compound (VOC)	EPA TM 24, Procedure B	> 93%	Not applicable
	SCAQMD 443.1	Not applicable	> 730 g/L
Solids	ASTM D2834	< 7%	Not applicable
Flash Point (Report)	ASTM D3278-Seta Tester	1.6 °C	9 °C

3.3.1 Material Stability, GMW15735. The requirements of 9986084 must be met after the following environments (see 3.3.1.1 thru 3.3.1.4) in original manufacturer unopened container.

3.3.1.1 Elevated Temperatures. Seventy two (72) h at 50 °C ± 3 °C.

3.3.1.2 Low Temperatures. Three (3) cycles of 17 h at -30 °C ± 3 °C and 7 h at 23 °C ± 3 °C, 50% ± 5% Relative Humidity (RH).

3.3.1.3 Shelf Life Storage Stability. Eighteen (18) days minimum at 35 °C ± 3 °C, 50% ± 5% RH. Shelf life of the material shall commence upon receipt from the manufacturer.

3.3.1.4 Pressure Stability, SAE J1864. As shipped, the primer must not separate or cake.

4 Manufacturing Process

4.1 Materials approved to this specification must be capable of being dispensed and processed with standard GM production equipment.

4.2 Open Time. Thirty (30) minutes.

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.

5.5 All materials supplied to this standard must comply with the requirements of the International Material Data System (IMDS) and GMW3059, **Restricted and Reportable Substances**.