GM	WORLDWIDE ENGINEERING STANDARDS	Material Specification	GMW18338

Adhesive Primer, Pinchweld, Specific for Moisture Sensitive Topcoats

1 Scope

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/Material Description. This specification details the material requirements of a primer intended to promote adhesion of urethane adhesives to Axalta topcoat systems for stationary glass bonding applications.

1.2 Symbols. Not applicable.

1.3 Applicability. Materials approved to this standard are used in conjunction with glass bonding adhesives. It is generally used for priming painted metal opening for fixed glass. The primer is compatible with specific saline carrying topcoats and acts as an interface to glass adhesives.

1.4 Remarks. None.

2 References

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

2.1 External Standards/Specifications.

ASTM D56	ASTM D1475	ASTM E502	SAE J1864
ASTM D1200	ASTM D2834	EPA TM 24	

2.2 GM Standards/Specifications.

9986275	GMW3041	GMW14270	GMW18339
9986400	GMW3059	GMW15735	

2.3 Additional References. Not applicable.

3 Requirements

See Table 1.

Table 1: Properties

Properties	Test Values	Test Methods
Color	Black	Visual
Density	1.07 kg/L to 0.05 kg/L	ASTM D1475
Viscosity	23 s to 50 s Initial 23 °C ± 2 °C @ 50% ± 5% RH	ASTM D1200, Ford Number 4 Cup
Volatile Organic Compound (VOC)	≤ 60%	EPA TM 24, Procedure B
Solids Content	≥ 35%	ASTM D2834
Flash Point (Report)	-7 °C	ASTM D56 per ASTM E502

Note: kg/L = kilogram/Liter, RH = Relative Humidity, s = Seconds, VOC = Volatile Organic Compound

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3.1 Performance Requirements.

Materials approved to this specification shall meet the bonding requirements of GMW3041 when used in conjunction with a GM approved glass bonding adhesive sealing compound, e.g., 9986275, 9986400. The GM adhesive sealing compound must be agreed to by the approving GM Engineering Group and material supplier candidate prior to the onset of testing.

3.1.2 Material Stability, GMW15735. The requirements of GMW18339 must be met after the following environments.

3.1.2.1 Elevated Temperatures. 72 h at 54 °C ± 2 °C.

3.1.2.2 Low Temperatures. Three (3) cycles of 17 h at -30 °C ± 3 °C, 7 h at 2 °C ± 3 °C and 50% ± 5% relative humidity (RH).

3.1.2.3 Shelf Life Storage Stability. 180 d minimum at 35 °C ± 3 °C and 50% ± 5% RH. Shelf life of the material shall commence from the date of manufacture.

3.1.2.4 Pressure Stability, SAE J1864. As shipped, the adhesive must not separate or cake.

3.2 All materials supplied to this standard must comply with GMW3059, **Restricted and Reportable Substances**, including the requirement to obtain a GM-approved International Material Data System (IMDS) submission.

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 (Materials Engineering).

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 materials. If an approved material is used, the part supplier can use the GM material file reference for Production Part Approval Process (PPAP) material approval. If the decision is made to use a not yet approved material, contact the adhesives materials specialist for details on the approval process. The material approval process must be completed prior to PPAP start date of the part supplied to General Motors.

7 Notes

7.1 Glossary. Not applicable.

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