



Adhesive Primer, Clear, Polyurethane to Glass

1 Scope

This specification covers a glass primer/activator used as primer Number 1 of a two-step primer system. The two step primer system is used in conjunction with a polyurethane adhesive sealing compound.

1.1 Material Description. This material is a clear, solvent based, saline type primer/activator used to condition and promote adhesion to automotive glass. It conditions the glass surface in preparation for a second black glass primer, 9982279, that interfaces a polyurethane adhesive sealing compound. Reference 9982280 and 9985397.

1.2 Symbols. Not applicable.

1.3 Typical Applications. Materials approved to this specification are intended for use in bonding adhesive to stationary automotive safety glass. In conjunction, the glass is also bonded to painted automotive body openings. The bonding applications are typically windshield, backlight, and liftgate glass.

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.

9982279	9985397	GMW3059
9982280	GMW3041	GMW15735

2.3 Additional References.

TMC003 Material Safety Data Sheet guidance documents (available at www.gmsupplypower.com).

3 Requirements

3.1 Material Properties. See Table 1.

Table 1: Material Properties

Properties	Values	Test Methods
Color	Black	Visual inspection
Density	0.78 Kg/L to 0.82 Kg/L	ASTM D1475
Viscosity	8 s to 13 s	ASTM D1200, Ford Number 4 Cup.
VOC	>98%	EPA TM 24, Procedure B
Solids Content	<2%	ASTM D2834
Flash Point (Report)	-25 °C	ASTM D56 per ASTM E502

3.1.1 Materials approved to this specification shall meet the bonding requirements of Shear Adhesion and Approval and Compatibility of GMW3041, when used in conjunction with black glass primer 9982279 and a GM North America (GMNA) approved glass bonding adhesive sealing compound. Reference 9982280. The GMNA adhesive sealing compound will be agreed to by the approving GM Engineering Group and the material candidate's supplier.

3.1.2 Material Stability, GMW15735. The requirements of 9982278 must be met after the following environments.

3.1.3 Elevated Temperatures: 72 h at 50 °C ± 3 °C.

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

3.1.5 Shelf Life Storage Stability: 180 days minimum at 35 °C ± 3 °C, 50% ± 5% RH. Shelf life of the material shall commence upon receipt from the manufacturer.

3.1.6 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: 30 minutes.

- **Reprime:** Glass that has been primed with 9982278, but not primed with 9982279, within 30 minutes must be reprimed.

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.

If not otherwise agreed, all release tests shall be repeated and documented by the supplier prior to commencement of delivery of non-conforming bulk supplies. In individual cases, a shorter test can be agreed to between the responsible Engineering department and the supplier.

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. In addition, product MSDS/SDS submissions must be in compliance with specific country General Motors TMC003 Material Safety Data Sheet/Safety Data Sheet guidance documents where available.

5.5 All materials supplied to this standard must comply with the requirements of GMW3059, **Restricted and Reportable Substances for Parts.**