



Sealer, Two Part, Ambient Cure, Mixture

1 Scope

1.1 Material Description. This specification details the requirements of a two part ambient cure seam sealer. It is a two part material consisting of a 1:1 mixture of a "Part A Resin" (9984563) component and a "Part B Curative" (9984564) component. The material may be either manually or robotically applied and is intended to seal body joints against water, dust, air intrusion and corrosion. Each component must be a smooth and homogeneous mixture free of air, lumps, unmixed particles and foreign materials.

1.1.1 The material must be capable of being dispensed with approved and validated production displacement pumping and two part meter/mix application equipment.

1.1.2 It must not have a toxic or noxious odor in either the uncured or cured state.

1.1.3 In addition, the material must not adversely affect the personnel handling it.

1.2 Symbols. Not applicable.

1.3 Applicability. This material is intended for application after ALL paint ovens, over Electrocoated (E-coat) metal substrate.

1.4 Remarks. Not applicable.

2 References

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

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

9984563	GMW3059	GMW7159	GMW14270
9984564	GMW3221		

2.3 Additional References.

Production Part Approval Process (PPAP) Documentation Requirements

3 Requirements

3.1 Material Testing and Validation. The material must be tested and validated to the requirements of GMW7159.

3.2 Sample Conditioning. All samples are to be conditioned prior to each requirement test to GMW3221, Code A/B/C/D.

3.3 Production Part Approval Process (PPAP). In addition to the requirements detailed in 3.1, all new material must comply with and meet all PPAP documentation requirements including (but not limited to): Product and Process Specific Design Matrix, Design Failure Mode and Effects Analysis (DFMEA), Product Failure Mode and Effects Analysis (PFMEA), Key Product Characteristic (KPC), Key Control Characteristic (KCC), Process Flow and Control Plan, Formulation Footprint, Process Capability Study and Measurement Systems Analysis.

3.3.1 Detailed technology specific bake charts must be developed and submitted to the appropriate GM Paint Engineer for approval.

3.4 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.

The appropriate GM Materials Engineering Department (Product Engineering or Manufacturing Engineering) must confirm materials as meeting the requirements of this specification. Only materials/sources listed in the GM Materials Approved Source List under this standard number have been qualified by Engineering as meeting the requirements of this standard.

Engineering qualifications of an approved source are required for this standard. Only sources listed in the GM Materials File (i.e., GM SupplyPower) under this standard number have been qualified by engineering as meeting the requirements of this standard. To access this list, reference GMW14270 for latest location.

7 Notes

7.1 Glossary. Not applicable.

7.2 Acronyms, Abbreviations, and Symbols.

DFMEA	Design Failure Mode and Effects Analysis
E-coat	Electrocoat
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
IMDS	International Material Data System
KCC	Key Control Characteristic
KPC	Key Product Characteristic
MSDS	Material Safety Data Sheet
PFMEA	Product Failure Mode and Effects Analysis
PPAP	Production Part Approval Process
SDS	Safety Data Sheet

8 Coding System

This standard shall be referenced in other documents, drawings, etc., as follows:

Material per 9984562