



Adhesive, Hot Melt

1 Scope

1.1 Material Description. This specification describes the requirements of an extrudable hot melt adhesive for bonding shoddy and foam sound absorber pads to rigid acrylonitrile butadiene styrene (ABS), polypropylene and fiberboard interior parts.

1.1.1 The adhesive is applied in a 3.2 mm or larger bead and the pad applied and compressed within 20 s after adhesive application.

1.1.2 The adhesive shall be an opaque white in color and free of air and foreign unmixed particles. It must be capable of being dispensed between temperatures of 171 °C to 188 °C. The adhesive must not char or oxidize in the pot while at the indicated temperatures.

1.2 Symbols. Not applicable.

1.3 Applicability. Bonding shoddy and foam sound absorber pads to rigid ABS, polypropylene and fiberboard interior parts and other areas below belt-line. For applications above belt-line and higher temperature applications, see 9986384.

2 References

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

2.1 External Standards/Specifications.

ASTM D1489 ASTM E28 ISO 8510-2

2.2 GM Standards/Specifications.

9986384 GMW3205 GMW14444 GMW16853
GMW3059 GMW14124 GMW15735

3 Requirements

3.1 Requirements on Test Specimens. See Table 1.

Table 1: Requirements

Properties	Values	Test Methods
Odor	6 or higher	GMW3205
Storage Stability	The shelf life of the material must be at least 6 months at temperatures not exceeding 35 °C	GMW15735, Section 4.3.2
Solids	100%	ASTM D1489
Softening	82 °C	ASTM E28
180 Degree Peel Strength Requirement	The adhesive shall delaminate the deadener pad	ISO 8510-2 after 4 cycles M per GMW14124

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.

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.

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**.

6 Approved Sources

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

A list of approved materials can be found in MATSPC. This GM Material File is provided to third parties to reduce redundant testing of materials. If approved material already listed is used, the part supplier can use 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 Materials Engineering 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.

MATSPC: Global repository of GM approved materials for corresponding GM Engineering Standards.

7.2 Acronyms, Abbreviations, and Symbols.

ABS	Acrylonitrile Butadiene Styrene
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
IMDS	International Material Data System
MSDS	Material Safety Data Sheet
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 9985744