



Adhesive, Film

1 Scope

1.1 Material Description. A form of pressure-sensitive, adhesive dry film protected with a release liner. Constructions may include adhesive transfer films, and double coated tapes. The thickness of this material is sufficient to adhere satisfactorily to textured or uneven surfaces plus where some surface mismatch exists. It may be applied to painted surfaces, Kraft paper, various metals, plated surfaces, glass, and high surface energy plastics (excluding polyethylene, polypropylene, thermoplastic olefin (TPO), polystyrene, and acetals)

1.2 Symbols. Not applicable.

1.3 Applicability. For adhering foams and/or lightweight parts.

2 References

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

2.1 External Standards/Specifications.

ASTM D3330 ASTM D3654 TAPPI T411

2.2 GM Standards/Specifications.

GMW3059 GMW14444 GMW16853

3 Requirements

3.1 Requirements on Test Specimens. See 3.3 and 3.4.

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 Shelf Life. Material shall pass all requirements of this specification after aging material in the original container for 90 days at 35 °C.

3.4 Packaging. Tape to be furnished in evenly and uniformly wound rolls, adhesive side in, on suitable cores with the silicone treated paper protective covering easily removable with no separation of material.

3.5 Material Properties. See Tables 1 and 2.

Table 1: Material Properties as Received

Properties	Values	Test Methods
Color	Amber	Visual Inspection
Mass	0.110 kg/m ² to 0.127 kg/m ²	Weigh a 100 mm x 150 mm sample with liner removed to nearest milligram. Results to be given in kilograms per square meter (kg/m ²).
Solids Content	97.5% minimum	See Appendix A
Thickness of Adhesive	0.10 mm to 0.15 mm	TAPPI 411 with indicator foot 5 mm to 8 mm diameter, force of 50 g to 150 g. Teflon foot acceptable.
Adhesion to Steel	305 Nm width	ASTM D3330 Method E with 15 minute ± 5 minute dwell of sample prior to peel.

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Properties	Values	Test Methods
Shear Adhesion	3500 minutes @ 23 °C	ASTM D3654 Method A. Sample may dwell up to 72 h in controlled conditions prior to test to assure proper adhesion and promote shear failure. Adhesive test sample to be 12 mm x 25 mm ± 1 mm.
Liner Release	45 Nm width maximum	ASTM D3330 Method D

Table 2: Material Properties 90 Day Aged

Properties	Values	Test Methods
Color	Amber	Visual Inspection
Mass	0.0110 kg/m ² to 0.135 kg/m ²	Weigh a 100 mm x 150 mm sample with liner removed to nearest milligram. Multiply result by 0.064583 to obtain result in kg/m ² .
Solids Content	97.5% minimum	See Appendix A
Thickness	0.100 mm to 0.150 mm	TAPPI 411 with indicator foot 5 mm to 8 mm diameter, force of 50 g to 150 g. Teflon foot acceptable.
Adhesion to Steel	305 Nm width minimum	ASTM D3330 Method E with 15 minute ± 5 minute dwell of sample prior to peel.
Shear Adhesion	3500 minutes @ 23 °C	ASTM D3654 Method A. Sample may dwell up to 72 h in controlled conditions prior to test to assure proper adhesion and promote shear failure. Adhesive test sample to be 12 mm x 25 mm ± 1 mm.
Liner Release	45 Nm maximum	ASTM D3330 Method D

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