



Decorative Exterior Decal Appearance Requirements

1 Scope

1.1 Material Description. This specification describes the surface appearance, and quality requirements for vehicle exterior decorative decals. The requirements are described in terms of appearance attributes and surface blemishes for each zone of the vehicle. The purpose of these requirements is to ensure that the level of decal appearance meets, or exceeds the level expected by GM customers.

1.2 Symbols. Not applicable.

1.3 Applicability. This standard applies to blackout film, model identifications (IDs), two (2)-tone stripes, lower stripes, large graphics, textured and thermoformed films, and three (3)-dimensional graphics, which can be one (1)-piece parts, or individual letters. This specification does not cover clear urethane films. The appearance requirements are called out separately within GMW15957.

2 References

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

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW3059

GMW15777

GMW16243

GMW6992

GMW15957

2.3 Additional References.

- Safety and Industrial Hygiene (S&IH) Technical Standard (TS), S&IH TS 3.4-160-02

3 Requirements

3.1 Table A1 lists the maximum acceptable size/count per part of appearance attributes.

3.2. Product Categories. Table A2 describes the product categories covered by this specification.

3.3 Part Zones, Attribute Standards. Table A3 describes the part zones, and attributes standards.

3.4 Rejects with no dimensional requirements shall be evaluated at 1 m in vehicle position, unless otherwise specified.

3.5 Light intensity at inspection platform shall meet or exceed 1075 Lux.

3.6 The inspection time to identify any imperfection(s) is typically 10 s to 15 s.

3.7 An imperfection area is defined as 10 mm² area. Multiple dirt and fiber particles are allowed in an imperfection area, as long as total combined imperfection size does not exceed maximum size allowed for that imperfection. For example, if the maximum size fiber allowed is 3 mm, then two (2) fibers in a imperfection area cannot exceed total size of 3 mm (a 1 mm and 2 mm fiber are allowed, a 2 mm and 2 mm fiber are **not** allowed).

3.8 Unless otherwise specified, when combinations of different types of imperfections are present, all shall be treated as being of the type which has the most severe requirements.

3.9 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. In addition, product MSDS/SDS submissions must be in compliance with specific country General Motors S&IH TS 3.4-160-02 where available.

6 Approved Sources

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

The appropriate GM Materials Engineering department(s) must confirm material as meeting the requirements of this specification. Any test data sheets of material submitted to General Motors for such confirmation (e.g., during Production Part Approval Process (PPAP)) under this material specification must list all properties and must apply corresponding test methods of this material specification.

7 Notes

7.1 Glossary. Not applicable.

7.2 Acronyms, Abbreviations, and Symbols.

AAR	Appearance Approval Process
DE	Delta E color change
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
GSSLT	Global Subsystem Leadership Team
ID	Identification
IMDS	International Material Data System
MSDS	Material Safety Data Sheet
PPAP	Production Part Approval Process
S&IH	Safety and Industrial Hygiene
SDS	Safety Data Sheet

8 Coding System

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

Material per GMW16996