



Emblem – Vitreous Enamel (Cloisonné)

1 Scope

1.1 Material Description. These emblems are constructed of a Vitreous Enamel (Cloisonné) applied to a Gilders Bronze, Unified Numbering System (UNS) C21000 quarter hard per SAE J463, with chrome plate.

1.2 Symbols. Not applicable.

1.3 Applicability. This specification covers the performance requirements of a decorative exterior emblem.

2 References

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

2.1 External Standards/Specifications.

ASTM D870	SAE J463	SAE J2527
-----------	----------	-----------

2.2 GM Standards/Specifications.

GMW3059	GMW14270	GMW14729	GMW16193
GMW3221	GMW14458	GMW14872	GMW16742
GMW3286	GMW14672	GMW14873	

3 Requirements

3.1 Requirements on Test Specimens. Reference GMW3221. Samples tested for initial submission purposes must meet all requirements of this specification. The requirements shown in 3.2, 3.3.1 and 3.3.2 shall be used for quality control purposes. All tests shall be performed at 23 °C ± 2 °C and 50% Relative Humidity (RH) unless otherwise specified.

3.2 Plating Requirements. The chrome plated areas of the emblem shall meet the requirements of GMW14672 and have an approval listed in the Appearance Database.

3.2.1 Check plating thickness at all significant surfaces.

3.2.2 All plated surfaces shall be free of all surface defects.

3.3 Corrosion Resistance. Vitreous Enamel (Cloisonné) shall show no adverse appearance defects (blisters, cracking, film lifting, etc.,) or base metal corrosion after each exposure. Tests are non-sequential and run on three separate parts.

3.3.1 Per GMW14729: 96 h humidity.

3.3.2 Per ASTM D870: 2 h water immersion.

3.3.3 Cyclic corrosion per GMW14872 EXT, Exposure C. Rating 9 or 10. 3 mm maximum creepback.

3.3.3.1 Emblems must not show evidence of green, white, or red corrosion.

3.3.4 There shall be no evidence of base metal corrosion after exposure to 44 h Copper-Accelerated Acetic Acid Salt Spray (CASS) per GMW14458.

3.4 Weathering.

3.4.1 Emblems must not show any evidence of objectionable surface deterioration, color or gloss change, or other undesirable effect after a 4500 kJ/m² exposure at 340 N·m in xenon arc weatherometer when set up as described in SAE J2527.

3.4.2 Emblems mounted at a 5° angle from the horizon facing south in Florida per GMW14873. shall not show any evidence of objectionable surface deterioration when subjected to 1 and 2 years direct exposure. Objectionable surface deterioration shall be defined to include all visible surfaces. There shall be no

objectionable change in color, gloss, pitting or corrosion. In instances where xenon arc weatherometer and Florida/Arizona exposure results are in disagreement, the Florida/Arizona results will take precedence.

3.5 Adhesion. Emblems must meet the adhesive bond requirements as outlined in GMW16742.

3.6 Identification. All parts shall be identified with a fabricator's identification. If ink is used, it must not be easily rubbed off or cause any staining to materials with which it may come in contact. Any changes in marking inks must be approved by engineering before usage or adoption.

3.7 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.

Materials supplied to this specification must be approved by General Motors (Materials Engineering). See GMW16193 for details of the chrome plater approval process. Chrome platers must be approved by GM Materials Engineering for each combination of plating type (interior vs. exterior), substrate material, color finish, and plating line. In the case of trivalent chrome plating, approved chemistries (listed in the GM Materials Approved Source List) must also be used.

Note: For Code A, Type 3 (small parts), plater approval per GMW16193 is not required. Production Part Approval Process (PPAP) testing and approval is still required.

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.

CASS	Copper-Accelerated Acetic Acid Salt Spray
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
GSSLT	Global Subsystem Leadership Team

© Copyright 2017 General Motors Company All Rights Reserved

July 2017

Page 2 of 3