



ENGINEERING STANDARDS

Material Specification

LIMITED USE
HN1686

Acrylic Lacquer System Used for Interior and Exterior Repair for Painted Vehicles

Do Not Use on New Programs; No Replacement

1. SCOPE

This specification covers the requirements for approval of pigmented resin modified lacquer for vehicle interior and exterior finishing. This repair system is intended for use over metal or plastic substrates which have been coated with either solid polyester enamel topcoat or polyester/acrylic basecoat/clearcoat enamel through GM Holden Body Paint Shop or GM Holden Plastics Operation to the appropriate GM Holden specifications.

Interior vehicle repairs - It may be hand brushed to touch up small chips (max of 3mm in diameter) or spray applied. Larger Interior areas may be repaired by spray application. Chips to bare metal will require a suitable air dry lacquer primer application prior to topcoat.

Exterior vehicle repairs – This paint is not suitable for use in GM Holden Body Paint Shop or End of Line Repair at GM Holden Vehicle Assembly Plant. This paint is usually applied after vehicle delivery by either the vehicle owner or the GM Holden dealer. It will be primarily used to touch up small paint chips (max of 3mm in diameter) and is usually brush applied. Chips to bare metal will require a suitable air dry lacquer primer application prior to topcoat. The paint system supplied will be single layer for both metallic and non-metallic colours. It may be over-coated with a clear acrylic lacquer to give better gloss retention and appearance results.

2. REFERENCES

HN 1676	HN 1663	HN 1636
HN 1671	HN 1623	HN 0276
JN 0270	HN 0278	HN 0279
HN 0256	HN 0270	HN 1000

3. PROCESSING PROPERTIES

3.1 Compatibility

The material shall be compatible with the primer surfacer, sealer and topcoat used in the plant for which it is supplied.

The material shall be compatible with body build sealers and adhesives used in the plant for which it is supplied.

The material supplied shall be of such compatibility that it may be reduced with Dulux General Purpose Lacquer Thinner 922-04166 or a GM Holden Materials Engineering approved equivalent.

3.2 Colour and Gloss

Materials to be tested shall meet the minimum appearance standards established by GM Holden's Design Staff and Quality Control Departments, and shall be free from imperfections such as blisters, foreign particles or any other defect which will affect the appearance or serviceability of the part or assembly.

3.3 Viscosity, Coverage, Solids, etc.

Will be fixed at time of approval for each colour and shown on the Approved Sources and Processes for each paint supplier.

3.4 Resistance to Assembly Plant and Environmental Materials

The material shall exhibit no softening, staining, or other detrimental effects when contacted with materials commonly used in the assembly process, such as oils, greases, sealers and rubber compounds. Additionally, the material must be resistant and exhibit minimal effects when exposed to materials used in the maintenance and operation of the vehicle, if wiped from the surface immediately after contact. The material is not expected to be impervious to materials such as brake fluids, acids or other aggressive chemicals without some permanent effect if subjected to prolonged periods of exposure.

4. SPECIFIC REQUIREMENTS

4.1 Appearance

The lacquer shall present a smooth, uniform, continuous surface free from sags, craters, dirt, mottling, pitting, excessive orange peel or other defects detrimental to appearance or durability. For further appearance requirements on the vehicle body, refer Painted Body Appearance Specification HN 1676.

All pigmented lacquer supplied under this specification shall provide complete covering over a uniform undercoat at a maximum dry film thickness of 38 microns.

5. TESTS

5.1 Test Program

All specified tests must be performed by the paint supplier. Results and panels are to be presented to the appropriate Materials Engineer in the Central Laboratory, GM Holden.

Standard steel test panels of nominal dimensions 300 x 100 mm are to be phosphated to HN 1663 and painted with HN 1636 Cathodic electrocoat and HN 1671 Primer Surfacer. The repair Lacquer may be brush applied to interior or exterior surface paint chips of diameter 3mm or less. For testing purposes it may be spray applied to a larger panel surface. Chips to bare metal or plastic substrate will require a suitable air dry lacquer primer application prior to topcoat.

Topcoat colours matching each current GM Holden production body colour are to be used for paint approval and must complete each test.

Age all test panels for 72 hours ambient before testing unless otherwise specified.