



PAINT, REPAIR COLOR COAT, INTERIOR

WSS-M99J387-A

1. SCOPE

The material defined by this specification is a pigmented one component paint suitable for repairing first surface application to interior plastic parts.

2. APPLICATION

This specification was released originally as a repair finish for decorative interior plastic parts. Repair paint must be used to repair paint defects or to maintain consistent appearance of surface defects repaired. All repaired areas must conform to the appropriate appearance and performance specification.

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.4 PHYSICAL PROPERTIES

3.4.1 Non-Volatile Content (FLTM BI 102-01)

To be established by the vendor on the initial approved production batch. Tolerance shall be +/- 3.0%.

3.4.2 Stability (6 months at 23 +/- 2 °C)

Shall not liver or jell upon standing and must be free from settling which is not dispersed by normal agitation. The viscosity of the material shall not increase or decrease more than 10 s.

3.5 PREPARATION OF TEST PANELS

3.5.1 Substrate

Representative production molded, formed and painted parts will be used for test sample preparation. The only exception to this will be for rigid test samples used for scuff resistance and abrasion resistance, for which a molded and painted plaque may be used when a suitably flat section of a production part cannot be obtained. The materials used for these plaques must be the same materials as the production parts used for the other performance tests.

Good adhesion is required for same color repair. Color and gloss shall match between the virgin coat and the repair coat of the same color.

Date	Action	Revisions
2006 02 17	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.9, 3.10 and 4
2000 03 28	Activated	H. Mariam, L. Soreide, A. W. Veale, W. Welland



3.5.2 Repair Surface

The surface to be coated should be wiped clean using diluted IPA solution to ensure the absence of oil or alkaline residues, fingerprints, dirt, moisture, and other foreign materials.

The processing window for the repair coat shall be identified to ensure good adhesion properties.

When, in order to meet the requirements of this specification, surface enhancements (such as flaming, plasma treatment or chemical reaction(s) that change the surface chemistry) are required, they shall be specified on Engineering Documents.

3.5.3 Color Topcoat

Apply sufficient color topcoat to film thickness of 12 - 15 micrometer or as required to meet the rest of the specification.

3.5.4 Drying Time

All samples should be dry to the touch within 1 to 2 minutes assuming 50 +/- 5% Relative Humidity, 23 +/- 2 °C to be room normal conditions. Supplier shall define standard condition/time and submit along with product test results.

3.6 APPEARANCE

3.6.1 General

The coating shall exhibit no craters, pinholes, solvent popping, seediness, abnormal roughness, or excessive flow.

3.6.2 Color (FLTM BI 109-01, Visual Assessment) (SAE J1545, MA58 Three-Angle CMC)

Shall match the Master Approved Sample color panel.

3.6.3 Gloss (FLTM BI 110-01, ASTM D 523)

As released by Engineering:

A:	20° Glossmeter, min	90
B:	60° Glossmeter	76 +/- 4
C:	60° Glossmeter	70 +/- 4
D:	60° Glossmeter	62 +/- 3
E:	60° Glossmeter	50 +/- 3
F:	60° Glossmeter	35 +/- 3
G:	60° Glossmeter	20 +/- 3
H:	60° Glossmeter	10 +/- 3
J:	60° Glossmeter	5 +/- 1
K:	60° Glossmeter	3 +/- 1
L:	60° Glossmeter	1.5 +0.5/-1

The color, pattern and finish shall match the approved Design Center master sample, or shall be as specified on the Engineering Document.



3.7 FILM PROPERTIES

All film properties are based on the proper preparation per para 3.5 with acceptable appearance, gloss reading, film thickness and after 72 h post cure. New technologies must be approved to all of the tests in para 3.7.

- 3.7.1 Film Thickness, range
(ASTM B 487 or other mutually agreed
Upon method)

As required to meet the rest of the specification

- 3.7.2 Adhesion
(FLTM BI 106-01, Method D)

Less than 5% paint removal with no complete diamonds removed. Six lines in each direction should make up the grid. The overall dimensions should be at least 25 mm wide by 50 mm long from the widest and longest points unless restricted by part size.

- 3.7.3 Water Resistance 24 h
(FLTM BI 104-01)

No blistering, softening, dulling, color change or loss of adhesion per para 3.7.2 within 30 minutes of removal from water.

- 3.7.4 Resistance to Abrasion, min Rating 6
(SAE J948, CS-10 wheels, 500g,
250, 500 cycles, see below)

The surface shall show no evidence of wear through, and the color of the abraded area shall be acceptable in appearance according to DVO-0009-IP.

Run a minimum of 250 cycles for flexible cover stock.

For hard plastics, measure and report the paint film thickness of the panel. Run a min of 500 cycles. Run an additional 200 cycles for every 5-micron increment over 25 microns of paint thickness. No evidence of lifting, peeling, or excessive scuffing.

- 3.7.5 Resistance to Scuffing, min Rating 6
(SAE J365, 500 cycles)

The surface shall show no evidence of wear through, and the color of the scuffed area shall be acceptable in appearance according to DVO-0009-IP. No permanent parallel deformation to the surface.

- 3.7.6 Resistance to Cleaning Agents, max discoloration Rating 4
(FLTM BN 107-01, 10 cycles, AATCC
Evaluation Procedure 2)

Test Procedure: Saturate white cotton cloth with the cleaners listed. Evaluation according to the AATCC Scale.

Cleaners (see also para 5.1)

- 1) Deionized water
- 2) Window cleaner with ammonia
- 3) All purpose cleaner
- 4) Dry (no cleaners or water)

