

ENGINEERING MATERIAL SPECIFICATION

Material Name	Specification Number
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ENAMEL, AIR DRY REPAIR, BASECOAT, NON-SKIN PANEL SURFACES, EXTERIOR	WSB-M1J214-A1
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ENAMEL, AIR DRY REPAIR, CLEARCOAT, NON-SKIN PANEL SURFACES, EXTERIOR	WSB-M1J214-A2
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1. SCOPE

The materials defined by these specifications are air drying, basecoat and clearcoat enamels suitable for in-plant repair of exterior, non-skin panel surfaces.

2. APPLICATION

These specifications were released originally for materials used for repairing small scratches, chips, etc. on exterior, non-skin panel surfaces.

3. REQUIREMENTS

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 COMPOSITION

3.4.1 Resin

The vehicle shall be based on a suitable synthetic resin system to obtain the desired application and resistance properties.

3.4.2 Pigment

The pigment shall be balanced and blended so that the finished enamel meets the requirements of this specification.

Date	Action	Revisions
2003 06 09	Revised	Para 3.0 inserted; para 3.1, 3.2, 3.3, 3.10, 3.11 and 4 deleted
1993 01 23	NB00E1009725003	Released P.A. Krusac

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3.4.3 Solvents

Aliphatic hydrocarbons, aromatics, esters, keytone, and alcohols as required to provide performance.

3.4.4 Specific Composition

When it is necessary to obtain specific data regarding material formulation, it is understood that the supplier will furnish such data on request.

3.5 PHYSICAL PROPERTIES

3.5.1 Non-Volatile Initial sample +/- 1.0%
(FLTM BI 102-01)

3.5.2 Density Initial sample +/- 0.02 g/mL
(ASTM D 1475)

3.5.3 Viscosity
(FLTM BI 111-01, #4 Ford, 27 °C)

3.5.3.1 Package Viscosity 60 - 130 s
(WSB-M1J214-A1)

Production may require higher viscosities in order that required performance levels are maintained. Batch variations shall not exceed +/- 2 s #4 Ford cup of the viscosity authorized by the affected manufacturing areas.

3.5.3.2 Test Viscosity
(WSB-M1J214-A1)

Initial samples and samples taken from production shipments must be tested at 50 - 180 s #4 Ford cup and if in excess of this, must be reduced to this viscosity. The supplier shall state and supply suitable solvent for this purpose when required.

3.5.3.3 Package Viscosity 68 - 78 s
(WSB-M1J214-A2)

Production may require higher viscosities in order that required performance levels are maintained. Batch variations shall not exceed +/- 2 s #4 Ford cup of the viscosity authorized by the affected manufacturing areas.

3.5.3.4 Test Viscosity
(WSB-M1J214-A2)

Initial samples and samples taken from production shipments must be tested at 68 - 78 s #4 Ford cup and if in excess of this, must be reduced to this viscosity. The supplier shall state and supply suitable solvent for this purpose when required.

3.5.4 Shelf Stability (WSB-M1J214-A1)

During a storage of three months at room temperature, the material as received shall not gel or liver upon standing and must be free from settling which cannot be dispersed by normal agitation. The viscosity of the material shall not increase in excess of 130 s #4 Ford when tested according to FLTM BI 102-03.

3.5.5 Solvent Emissions, max (WSB-M1J214-A1) 0.74 kg/L
(ASTM D 3960)

3.5.6 Shelf Stability (WSB-M1J214-A2)

During a storage of three months at room temperature, the material received shall not gel or liver upon standing and must be free from settling which cannot be dispersed by normal agitation. The viscosity of the material shall not increase in excess of 78 s #4 Ford when tested according to FLTM BI 102-03.

3.5.7 Solvent Emissions, max (WSB-M1J214-A2) 0.61 kg/L
(ASTM D 3960)

3.6 PREPARATION OF TEST PANELS
(FLTM BI 103-02)

3.6.1 Substrate

Ford Engineering Approved Standard Steel Test Panels, zinc phosphated, primed and topcoated with current production monocoat materials.

3.6.2 Application

Apply the material under evaluation using the appropriate assembly plant procedures, solvents, viscosities, etc.

Dry Film Thickness (WSB-M1J214-A1) 18 - 30 micrometres

Dry Film Thickness (WSB-M1J214-A2) 50 - 76 micrometres