



FORMIC ACID, ELECTROCOAT ADDITIVE

WSS-M64J43-A1

1. SCOPE

The material defined by this specification is an aqueous solution of formic acid.

2. APPLICATION

This specification was released originally for material used to control the pH-value of cathodic electrocoat primer.

2.1 LIMITATIONS

The materials shall only be used, as specified by the electrocoat supplier.

3. REQUIREMENTS

3.1 APPROVED SOURCES

This specification requires the use of approved sources. Only the sources identified on the Ford Approved Source List (ASL) can be used when this specification is listed on the drawing, CAD file, or other documents. The list of approved sources is located within Ford at www.mats.ford.com or available externally through a Ford Materials Engineer.

3.2 CONDITIONING AND TEST CONDITIONS

All test values are based on material conditioned for not less than 24 h prior to testing in a controlled environment of 23 +/- 2 °C and 50 +/- 5% relative humidity. Testing of the material should occur in the conditioning environment or soon after removal.

3.3 COMPOSITION

3.3.1 Aqueous solution of formic acid (CH_3COOH), compatible with electrocoat process system.

3.4 PHYSICAL PROPERTIES

3.4.1 Color	Clear/Colorless
3.4.2 Density, (ASTM D1475)	1.02-1.05 g/ml
3.4.3 pH-Value	5.0

4. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of this specification. Contact gmfs@ford.com for questions concerning Engineering Material Specifications.

Date	Action	Revisions	Rev. 0
2017 09 28	Released		



4.1 APPROVAL OF MATERIALS

Suppliers desiring approval of their materials shall first obtain an expression of interest from Purchasing, Design or Product Development, and Materials Engineering. The supplier shall submit a completed copy of their laboratory test reports, signed by a qualified and authorized representative of the test facility, demonstrating full compliance with all the requirements of the Material Specification. Tested material samples must be available for review upon request and kept for a minimum of one year. Upon request, the supplier will review the associated quality control documents (Process Failure Mode and Effects Analysis, Control Plans, Certification testing) with Ford.

4.2 SUPPLIER'S ONGOING RESPONSIBILITY

All materials must be equivalent in all characteristics to the material upon which approval was originally granted.

Prior to making any changes to the material originally approved, whether or not such changes affect the material's ability to meet the specification requirements, the supplier shall notify the affected Supplier Technical Assistance (STA), Purchasing, and Materials Engineering activities of the proposed changes (with reasons) by submission of a completed Suppliers Request for Engineering Approval, SREA.

For parts and components using Ford Engineering Material Specifications, all samples tested to the specifications for Design Verification (DV), Production Verification (PV) and Production Part Approval Process (PPAP) sign off must be kept until Job 1.

4.3 RESTRICTED SUBSTANCE MANAGEMENT STANDARD

Substance restrictions imposed by regulations or Company direction applies to the materials addressed by this document. The restrictions are identified in the Restricted Substance Management Standard WSS-M99P9999-A1 which is updated yearly. It is the supplier's responsibility to comply with this standard on a continuing basis through IMDS and or GMAP reporting.

5. SUMMARY OF REVISIONS

