



ENGINEERING MATERIAL SPECIFICATION

Material Name	Specification Number
PAINT, WATER BASED, ENGINES AND ENGINE ACCESSORIES	WSK-M62J29-A1
PAINT, WATER BASED, ENGINES AND ENGINE ACCESSORIES, BRUSH APPLICATION	WSK-M62J29-A2
PAINT, WATER BASED, ENGINES AND ENGINE ACCESSORIES, 200 C TEMPERATURE RESISTANCE	WSK-M62J29-A3

1. SCOPE

The materials defined by these specifications are air drying engine paints for nominal 20 micrometre film thickness.

2. APPLICATION

These specifications were released originally for materials used for various applications within the engine compartment such as engine blocks, components, fasteners etc., made from castings or sheet steel.

WSK-M62J29-A1/-A3: The materials are suitable for electrostatic and airless spray application.

WSK-M62J29-A2: The material is suitable for brush application in case of spot repair.

3. REQUIREMENTS

3.1 STATISTICAL PROCESS

Suppliers must conform to the requirements of Ford Quality System Standard Q-101. A mutually acceptable Control Plan as described therein is required for material/source approval. Appropriate statistical tools must be used to analyze process/product data so that variation in the final product is continuously reduced.

3.2 INFRARED SPECTROPHOTOMETRY AND/OR THERMAL ANALYSIS

Ford Motor Company, at its option, may conduct infrared and/or thermal analysis of material/parts supplied to this specification. The IR spectra and thermograms established for initial approval shall constitute the reference standard and shall be kept on file at the designated material laboratory. All samples shall produce IR spectra and thermograms that correspond to the reference standard when tested under the same conditions.

3.3 CONDITIONING

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Date	Release No.	Release/Revision
1993 09 01	EP00E10258825000	Revised 3.5.1, minor changes KW
1992 06 01	EP00E10176270000	Version A3 added, revised colour paragraph
1991-01-02	C01089480	Release KW



3.4 COMPOSITION

- 3.4.1 Resin: Water based synthetic resins.
- 3.4.2 Pigments: Pigments to obtain the desired properties of the paint.

3.5 MATERIAL PROPERTIES

- 3.5.1 Non-volatile, min (FLTM BI 102-01) See Initial Sample +/- 1 %

Black	40 %
Grey	42 %

The non-volatile content shall be determined at application viscosity per 3.5.3.

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

- 3.5.3 Viscosity as supplied (FLTM BI 111-01, FC# 4)

The material shall be supplied in application-viscosity. It may be reduced with water.

WSK-M62J29-A1/-A3	20 - 25 s
WSK-M62J29-A2	100 - 120 s

- 3.5.4 Content of Organic Solvents, max 10 %

The content of organic solvents is defined as: Weight-% of organic solvents at spray viscosity.

- 3.5.5 Dry Hiding Power, max (FLTM BI 158-01) 20 micrometre

- 3.5.6 Storage Stability 90 days

During a storage between 5 and 32 C, the material as supplied shall not settle up or cake insoluble. After the storage the material must pass all specification requirements.

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

3.6.1 Substrate

3.6.1.1 Routine investigations:

- Non-phosphated Standard Steel Panels, according to Ford Manufacturing Standard U-MA18006.