



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

PRIMER SURFACER, COLOURED, PU-MODIFIED POLYESTER,
MEDIUM SOLID, 165 C BAKING TEMPERATURE

WSK-M6J160-A1

1. SCOPE

The material defined by this specification is a solvent borne, modified polyester, baking primer surfacer for exterior automotive applications.

2. APPLICATION

This specifications was released originally for material used as a primer surfacer over baked EC surfaces on vehicle bodies and small parts to provide good stone chip resistance and enamel appearance. The primer will be painted with either solvent borne topcoats or waterborne basecoats. The material is suitable for electrostatic spray application.

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
1991-09-02	EP00E01089488000	Released KW

WP 3948-a

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3.4 COMPOSITION

3.4.1 Resin

Polyurethane modified polyester resins and suitable cross linking components.

3.4.2 Pigments

Pigments and fillers to obtain the desired colour and resistance properties.

3.4.3 Solvent Emissions (ASTM D 3960) See Initial Sample +/- 1 %

This requirement is as determined by the United States Environmental Protection Agency Reference Method #24 and is only applicable to materials used in the USA.

3.5 MATERIAL PROPERTIES

3.5.1 Non-volatile at Spray Viscosity (FLTM BI 102-01; FLTM BI 111-01, FC# 3 at 25 C)

Spray viscosity 67 +/- 2 s

Colour group

Grey 64 - 66 %

dark colours (e.g. mid red, dark blue) 63 - 65 %

Black (e.g. anthrazit) 57 - 59 %

light colours (e.g. light red) 63 - 65 %

3.5.2 Density (ASTM D 1475) See Initial Sample +/- 0.05 g/mL

3.5.3 Viscosity as supplied (FLTM BI 111-01) See Initial Sample +/- 5 s

3.5.4 Spray Viscosity (FLTM BI 111-01) As specified by the supplier

The material shall be reduced with Xylene (WSK-M14J239-A) or any equivalent thinner.

3.5.5 Storage Stability 90 days

During a storage between 5 and 32 C temperature 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 B,b)

3.6.1 Substrates

- Standard Steel Panels per para 5.3

For Initial Approval only

- Precoated Steel Panels as used in the plant,

All steel substrates shall be zinc phosphated and conform to the requirements of WSK-M3P1-C.

3.6.2 Cathodic Electrocoat

Ford Engineering approved current production electrocoat primer, application and film thickness as specified in the relevant material specification.

3.6.3 Primer

Dry film thickness	25 - 35 micrometre
Flash off time	3 minutes
Baking (metal temperature)	5 minutes at 165 C and 5 minutes at 190 C

3.6.4 Top Coat

Application of current approved colour-adapted two coat metallic as well as solid colour top coat; film thickness and baking as specified in the relevant paint material specification.

3.6.5 Ageing

Test panels prepared under this specification shall be aged for at least 72 h at 23 +/- 2 C or 16 h at 45 +/- 1 C before testing for resistance properties.

3.7 APPEARANCE

Colour, gloss and surface finish shall match master Trim Sample and/or Master Appearance Sample as approved by Design.

3.7.1 Colour (Primer only) (FLTM BI 109-01)	Visual conformation with the Initial Sample within acceptable tolerance
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3.7.2 Gloss (Primer only) (FLTM BI 110-01, 60 deg)	75 - 90 %
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