



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

SEALER, UNDERBODY COATING, PRIMER OVEN CURING

WSK-M4G334-A

1. SCOPE

The material defined by this specification is a solvent free, heat curing, polyvinylchloride or other plastics based material with high abrasion and good corrosion resistance.

2. APPLICATION

This material was originally released for non-visible areas of underbody and wheel arch. The material is applied to electrocoated surface wet in wet with epoxy spray primer.

3. REQUIREMENTS

Note: Unless otherwise specified use test panels EC-coated according to FLTM BI 120-01, C. The material must be applied on the EC-coated test panel 30 minutes after oven curing.

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 AND TEST CONDITIONS

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 04 02	EP00E01089483000	Released	W. Scholz	Conc. J. Schult

WP 3948-a

Page 1 of 6

■ 9009160 0010496 T03 ■



3.4	COLOR	As specified on Engineering Drawing
3.5	SOLIDS, min (FLTM BV 150-10)	96.0 %
3.6	ASH, max (FLTM BV 150-10)	35.0 %
3.7	FLASHPOINT (ASTM D 93, Method A)	> 100 C

Note: If testing at higher temperatures is not feasible because of gelling of test material, the supplier must certify in writing that each separate volatile ingredient has a flash point > 100 C.

3.8	DENSITY AT 20 C (ASTM D 1475)	1.26 +/- 0.05 kg/L
3.9	VISCOSITY AT 20 C (FLTM BV 103-01, 275 kPa line pressure, nozzle dia 2 mm)	
3.9.1	As Received	3 - 20 s
3.9.2	After Aging, max (336 h at 30 +/- 2 C)	100 s

Note: Final approval of a specific viscosity of material for production shipments shall be made by the affected Manufacturing Division. In all cases, however, the viscosity shall be within the limits specified above and the material shall meet all requirements of this specification

3.10 SURFACE CONDITION

The material shall be dry to touch after cooling to 23 +/- 2 C. It shall be free from bubbles and shall show no evidence of chipping or cracking. Bend the sample through an angle of 90 degrees within 2 seconds around a 50 mm dia mandrel.

Test Method: Test panels of 300 x 100 mm (prepared according to FLTM BI 120-01) shall be coated with the material under test in such a manner (airless) that after the

- a) minimum curing cycle and
- b) maximum curing cycle

according to FLTM BV 150-05, Table 2, a dry coating thickness of 0.5 - 0.65 mm is obtained.