



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

SEALER, POLYURETHANE, SOLVENT RELEASE,
AIR DRYING

WSK-M4G245-B

1. SCOPE

The material defined by this specification is a solvent release one component sealer based on polyurethane. It cures at room temperature in the presence of moisture.

2. APPLICATION

This specification was released originally for dealer repair shops for the repair of interior and exterior body joint seams. The material is to be applied to dry, grease free and primed surfaces. After application condition for at least 5 h at 23 +/- 2 C and 50 +/- 5 % relative humidity (based on an application thickness of max 3 mm) prior to painting.

3. REQUIREMENTS

Note: Unless otherwise specified use:

- a) EC-coated test panels according to FLTM BI 120-01, Method C and
- b) test panels prepared according to FLTM BI 103-02, Method Bb, except only EC-coated and spray primer.

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.

Date	Release No.	Release/Revision		
1991 03 01	C01089482000	Released	W. Scholz	Conc. J. Schult

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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.

- 3.4 FLASH POINT (ASTM D 56) Above 25 C
- 3.5 COLOR White or as specified on Engineering Drawing
- 3.6 SOLIDS, min (FLTM BV 150-10) 82 %
- 3.7 ASH, max (FLTM BV 150-10) 14 %
- 3.8 DENSITY AT 20 C (ASTM D 1475) 1.15 - 1.25 kg/L
- 3.9 VISCOSITY AT 20 C (FLTM BV 103-01, nozzle 2 mm diameter, pressure 2.8 bar)
- 3.9.1 As Received 80 - 120 s
- 3.9.2 After Ageing, max (14 d at 30 +/- 2 C) 140 s
- 3.10 FLOW RATE AT 23 +/- 2 C (FLTM BV 153-01, Method A) No sagging

Test specimen prepared according to section 3. Test 1 h after material application.

3.11 COLD FLEXIBILITY AFTER AGING

No cracking, no loss of adhesion, no chipping or blistering.

Test Method:

- . Apply 280 x 30 x 2 mm ribbons of material under test to 300 x 100 x 0.8 - 0.9 mm test panels prepared according to clause 3.
- . Expose test specimens after 24 h at 23 +/- 2 C in a mechanically convected air dry oven at 70 +/- 2 C for 120 h.
- . After cooling to RT expose test assemblies and bending fixture (see FLTM BV 153-04, except 100 mm mandrel) in a cold box at - 40 +/- 2 C for 4 h.
- . While still in the cold box bend test assemblies within 2 s around the 100 mm mandrel through an angle of 90 degrees.