



ENGINEERING MATERIAL SPECIFICATION

Material Name	Specification Number
ADHESIVE, SEALER, SYNTHETIC RUBBER, HOT APPLIED, 60 - 70 C, HEAT CURING	WSK-M2G299-B1
ADHESIVE, SEALER, SYNTHETIC RUBBER, HOT APPLIED 120 - 130 C, NON-REACTIVE	WSK-M2G299-B2
ADHESIVE, SEALER, SYNTHETIC RUBBER, HOT APPLIED 70 - 80 C, HEAT CURING	WSK-M2G299-B3
ADHESIVE, SEALER, SYNTHETIC RUBBER, WARM APPLIED 30 - 60 C, HEAT CURING	WSK-M2G299-B4

1. SCOPE

The materials defined by these specifications are solvent free, spot weldable adhesives and sealers.

2. APPLICATION

These specifications were released originally for materials used to bond sheet metal body parts. The materials are applicable on oiled surfaces.

WSK-M2G299-B1 is used where high shear strength is required, e.g. bonding of hood parts. It cures during the electrocoat baking process at 175 C.

WSK-M2G299-B2 is used to seal rear wheelhouse to side panel, roof bow to roof, frame of sliding roof to roof etc. It does not cure.

WSK-M2G299-B3 is used to seal rear wheelhouse to side panel, roof bow to roof, frame of sliding roof to roof etc. It cures during the electrocoat baking process at 175 C.

WSK-M2G299-B4 is used to bond reinforce panel to door panel etc. It cures during electrocoat baking process at 175 C.

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.

Date	Release No.	Release/Revision
1993 03 01	EP00E10258809	Added -B4 & Updated B.Lange
1991-11-04	EP00E01089490000	WSK-M2G299-B3 added K. Wolters
1990-09-03	EP00E01031539000	Released KW

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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.

3.4 COLOUR Black or grey, or as specified on Engineering Drawing.

3.5 DENSITY AT 20 C (ASTM D 792) See Initial Sample +/- 0.05 g/cm³

3.6 SOLIDS, min (FLTM BV 150-10) 99.0 %

3.7 ASH, max (FLTM BV 150-10) 47.0 %

3.8 PENETRATION, mm (ASTM D 5, 0.483 N total weight force, 5 s dwell time)

	B1	B2	B3	B4
3.8.1 Original at 20 +/- 2 C	12-17	4.0-7	9-16	10-15
3.8.2 After Aging (14 days at 30 +/- 2 C)	10-17	3.5-7	8-16	9-15
3.9 WATER ABSORPTION, %, max (FLTM BV 153-07)	0.5	0.5	0.5	1.0
3.10 SHEAR ADHESION, N/cm ² (FLTM BV 154-03, Method B)	Cohesion failure			

Prepare test specimens according to section A for oiled surfaces, coating thickness 3.0 mm.