ADHESIVE, SEALER, SYNTHETIC RUBBER, HOT APPLIED, 60 - 70 °C, HEAT CURING, MEDIUM STRENGTH — **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**
NOT TO BE USED FOR NEW DESIGN

ADHESIVE, SEALER, SYNTHETIC RUBBER, WARM APPLIED, 30 - 60 °C, HEAT CURING — **WSK-M2G299-B4**
NOT TO BE USED FOR NEW DESIGN

ADHESIVE, SEALER, SYNTHETIC RUBBER, COLD APPLIED, 15 - 35 °C, HEAT CURING — **WSK-M2G299-B5**
NOT TO BE USED FOR NEW DESIGN

ADHESIVE, SEALER, RUBBER BASED, WARM APPLIED, 30 – 50 °C, HEAT CURING — **WSS-M2G299-B6**
NOT TO BE USED FOR NEW DESIGN

ADHESIVE, SEALER, SYNTHETIC RUBBER, EXPANDABLE, COLD APPLIED, 15 - 35 °C, HEAT CURING — **WSK-M2G299-B7**
NOT TO BE USED FOR NEW DESIGN

ADHESIVE, SEALER, SYNTHETIC RUBBER, WARM APPLIED 60 - 70 °C, HEAT CURING, LONG TERM FLEXIBLE — **WSS-M2G299-B8**

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 with acceptable oil film weights (European applications limit the oil/pre-lubricant film weight to max 3 g/m², see para. 3.20).

Note: Care must be taken to ensure that the local oil film weight in the area of the adhesive/sealer application does not exceed the critical limit. Monitoring of the film thickness, adequate storage of the part and/or cleaning of the surface prior to sealer/adhesive application is necessary to avoid critical film thickness values, which would then cause malfunction of the sealer/adhesive.

Date	Action	Revisions	Rev. 05
2016 05 27	Revised	See Summary of Revisions	J.Herl, FoE
2015 01 07	N Status	B4 N Status - No replacement named	L. Sinclair, NA
1990 09 03	Released	B1 and B2 Released	K. Wolters, FOE

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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.

WSK-M2G299-B5 is used to bond rear wheel arch outer to inner panel plus fuel filler. It cures during electrocoat baking process at 175 °C.

WSS-M2G299-B6 is used to bond roof bow to roof, etc. It cures during the electrocoat baking process at 175 °C.

WSK-M2G299-B7 is used to bond rear wheel arch outer to inner panel plus fuel filler. It is applied with swirl spray system. It cures during electrocoat baking process at 175 °C.

WSS-M2G299-B8 is used where high shear strength and long term flexible properties are required, e.g. bonding of hood parts. It cures during the electrocoat baking process at 175 °C.

3. REQUIREMENTS

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

This specification requires the use of approved sources. Only the sources identified on the Ford Approved Source List (ASL) can be used when this specification is listed on the drawing, CAD file, or other documents. The list of approved sources is located within Ford at www.mats.ford.com or available externally through a Ford Materials Engineer.

3.2	**COLOR**	Black or grey
3.3	**DENSITIY AT 20 °C** (ASTM D792)	See Initial Sample +/- 0.05 g/cm^3
3.4	**SOLIDS** (FLTM BV 150-10)	99.0 % min
3.5	**ASH** (FLTM BV 150-10)	47.0% max
3.6	**WATER ABSORPTION** (FLTM BV 153-07 Method A, Exception: Cure according to Para 4.4 (electrocoat only)	1% max

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3.7 SHEAR ADHESION, N/cm^2 Cohesion failure
(FLTM BV 154-03, Method B)

Prepare test specimens according to section A for oiled surfaces and para 3.20, coating thickness 3.0 mm for B1-B4/B6 and B8 and 0.2 mm for B5 and B7

Cure according to Para 4.4

		B1	B2	B3	B4	B5	B6	B7	B8
3.7.1	At 23 +/- 2 °C, min	80.0	3.0	3.0	20.0	400	12.0	900	80
3.7.2	At 90 +/- 2 °C, min	40.0	0.5	1.0	10.0	90.0	8.0	550	40
3.7.3	At -30 +/- 2 °C, max	>80.0	>3.0	>3.0	20.0	>450	20.0	>850	90-225

3.8 PEEL ADHESION, N/cm, min Cohesion failure
(FLTM BV 154-03, Method C)

Prepare test specimens according to section A for oiled surfaces and para. 3.20, coating thickness 3.0 mm for B1-B4/B6 and B8 and 0.2 mm for B5 and B7.

Cure according to Para 4.4

		B1	B2	B3	B4	B5	B6	B7	B8
3.8.1	At 23 +/- 2 °C, min	80.0	10.0	10.0	25.0	140	11.0	400	70
3.8.2	At 90 +/- 2 °C, min	70.0	4.0	4.0	15.0	80	9.0	200	60
3.8.3	At -30 +/- 2 °C, max	250	45.0	45.0	45.0	210	15.0	260	75-175

3.9	**HARDNESS DUROMETER A** (ISO 868, 3 s dwell)	60 -75	NA	>8	5-15	>75	>13	>90	60-70

Test Method: Prepare a test panel (300 x 100 x 0.8 -0.9 mm) according to FLTM BZ 150-01 see para 3.20. Apply a ribbon of test material (250 x 30 x 5 mm) to the Test Panel.

Conditioning: 10 minutes at 23 +/- 2 °C

Baking: 30 minutes at 175 +/- 2 °C

Conditioning: 4 h at 23 +/-2 °C

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