Ford Motor Company

ENGINEERING MATERIAL SPECIFICATION

Material Name	Specification Number
ADHESIVES, ANAEROBIC, PRE-APPLIED THREADLOCKING	**WSK-M2G354-A1/A7**

1. SCOPE

These products produce dry to the touch latex films containing anaerobic adhesive and encapsulated activator. Typically, the mixed product is applied in a band to fastener threads with automated equipment, and the carrier is dried in 65 - 70 °C ovens. The dry film remains inert until trapped and sheared in fastener threads during torquing. The encapsulated activator is released causing the anaerobic material to polymerize to a tough, thermoset plastic that locks and seals either straight thread fasteners or tapered thread pipe fittings.

2. APPLICATION

These specifications were originally released for industrial quality materials used to lock and seal parts.

They may be used for fluid pressure resistance, to prevent loosening under shock and/or vibration, or to prevent leakage due to vibration.

A1 Similar to A4 except lubricant added for torque/tension control.

A2 A pre-applied dry to the touch encapsulated anaerobic adhesive, high strength for permanent fastener locking, 150 °C continuous service temperature.

A3 A pre-applied dry to the touch encapsulated anaerobic adhesive, high strength for permanent fastener locking, ideal for hot oil application, 200 °C continuous use temperature.

A4 A pre-applied dry to the touch encapsulated anaerobic adhesive, medium strength for general purpose use, similar to A2 in all other respects.

A5 A pre-applied dry to the touch encapsulated anaerobic adhesive for threadlocking and threadsealing, low strength for easy fastener serviceability, 150 °C continuous use temperature.

A6 Similar to A2 except higher strength and for use with plated fasteners.

A7 Similar to A4 except for use on plated fasteners.

Date	Action	Revisions
2014 12 17	Revised	Separated A8-9 L. Sinclair, NA
2003 01 24	Revised	Para 3.0 inserted ; Para 3.1, 3.2, 3.3, 3.8, 4 deleted
1990 08 01	EP00E0103153000	Released F.O. Swanson J.Schult

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3. REQUIREMENTS

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.4 VISCOSITY

(ASTM D 1084, Method B at 23 +3/- 2 °C , determined without activator capsules)

Type	Brookfield Model	Spindle	RPM	mPa.s
WSK-M2G354-				
A1	RVF	5	2	45,000 - 85,000
A2	RVF	5	2	75,000 - 100,000
A3	RVF	5	2	75,000 - 100,000
A4	RVF	5	2	75,000 - 100,000
A5	RVF	5	2	75,000 - 100,000
A6	RVF	5	2	75,000 - 100,000
A7	RVT	6	2.5	90,000 - 140,000

3.5 LOCKING TORQUE, min, N.m

(FLTM BV 128-01, determined with activator capsules)

	Type	After 72 h room temperature cure	After 72 h room temperature cure followed by 1 h at 150 +/- 2 °C . Test at room temperature.
WSK-M2G354-			
A1	Break	31	37
	Prevail	8	8
A2	Break	17	19
	Prevail	11	11

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