

NOT MEASUREMENT SENSITIVE

MIL-S-46163A
 INTERIM AMENDMENT 3
 3 February 1995

MILITARY SPECIFICATION

SEALING, LUBRICATING AND WICKING COMPOUNDS: THREAD-LOCKING,
 ANAEROBIC, SINGLE-COMPONENT

This interim amendment forms a part of MIL-S-46163A, dated 5 December 1985, and is approved for use by all Departments and Agencies of the Department of Defense.

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3.3.2: Delete TABLE II and substitute:

"TABLE II. Absolute viscosity of unpolymerized sealing compounds.

Type and Grade	Viscosity, centipoises (Pascal second)		
<u>Type I</u>			
Grade J	110 - 150	(0.11 - 0.15)	
Grade K	400 - 600	(0.40 - 0.60)	
Grade L	6,000 - 8,000	(6.00 - 8.00)	
<u>Type II</u>			
Grade M	2 RPM:	$\geq 5,000$	(≥ 5.00)
	20 RPM:	800 - 1,600	(0.80 - 1.60)
Grade N	2 RPM:	$\geq 5,000$	(≥ 5.00)
	20 RPM:	800 - 1,600	(0.80 - 1.60)
Grade O	2 RPM:	$\geq 5,000$	(≥ 5.00)
	20 RPM:	1,200 - 2,400	(1.20 - 2.40)
<u>Type III</u>			
Grade P	10 - 30	(0.01 - 0.03)	
Grade Q	10 - 30	(0.01 - 0.03)	
Grade R	10 - 30	(0.01 - 0.03)"	

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AMSC N/A

FSC 8030

DISTRIBUTION STATEMENT A Approved for public release; distribution unlimited.

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3.3.4: Delete and substitute:

"3.3.4 Condition in container. The unpolymerized compound, when examined in accordance with 4.6.1.4 shall be smooth and homogeneous in appearance and shall be free from lumps, caked material, or other foreign substances."

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Delete TABLE III and substitute:

"TABLE III. Locking torque of polymerized sealing compounds after normal curing.

Type and Grade	Locking Torque*, inch pound _f (newton meter)			
	Steel		Plated	
	Break a way	Prevail	Break a way	Prevail
I				
grade J	100 - 200 (11.3 - 22.6)	50 - 150 (5.6 - 16.9)	30 - 200 (3.4 - 22.6)	20 - 200 (2.3 - 22.6)
grade K	150 - 350 (16.9 - 39.5)	150 - 500 (16.9 - 56.5)	40 - 350 (4.5 - 39.5)	40 - 500 (4.5 - 56.5)
grade L	150 - 350 (16.9 - 39.5)	150 - 500 (16.9 - 56.5)	50 - 350 (5.6 - 39.5)	40 - 500 (4.5 - 56.5)
II				
grade M	30 - 100 (3.4 - 11.3)	10 - 100 (1.1 - 11.3)	10 - 100 (1.1 - 11.3)	5 - 100 (0.6 - 11.3)
grade N	70 - 200 (7.9 - 22.6)	20 - 200 (2.3 - 22.6)	10 - 200 (1.1 - 22.6)	5 - 200 (0.6 - 22.6)
grade O	100 - 250 (11.3 - 28.2)	100 - 300 (11.3 - 33.9)	50 - 250 (5.6 - 28.2)	50 - 250 (5.6 - 28.2)
III				
grade P	20 - 100 (2.3 - 11.3)	20 - 100 (2.3 - 11.3)	10 - 100 (1.1 - 11.3)	10 - 100 (1.1 - 11.3)
grade Q	20 - 100 (2.3 - 11.3)	100 - 200 (11.3 - 22.6)	15 - 200 (1.7 - 22.6)	15 - 200 (1.7 - 22.6)
grade R	20 - 150 (2.3 - 16.9)	150 - 500 (17.0 - 56.5)	10 - 100 (1.1 - 11.3)	75 - 500 (8.5 - 56.5)

* 3/8 inch (9.525 mm) bolt (see 4.6.2.1.2)"

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3.5.3 Storage stability (primer). Add the following sentence:

"For primers with flash points below 120°F (49°C) and/or containing reactive diluents in their formulation, the primer as packaged in the original, unopened container shall meet the requirements of this specification when conditioned for a minimum of 6 months at 68°F (20°C) and tested as specified in 4.6.3.2."

3.6: Delete and substitute:

"3.6 Workmanship (primer). The primer shall be clear, homogeneous, and free of solid particles."

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Change "TABLE I" to "TABLE IV".

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4.6.1.4: Delete and substitute:

"4.6.1.4 Condition in container. Thoroughly shake the test container to re-suspend any solid material which may have settled to the bottom. Immediately extract a one milliliter sample of the compound and dispense onto a clean glass laboratory slide. Spread the compound into a thin film and visually examine the slide against a clean white background for the presence of solid particles. The compound shall comply with the requirements of 3.3.4."

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4.6.3.2: Delete and substitute:

"4.6.3.2 Storage stability (primer). Five containers of primer shall be conditioned for at least 4 weeks at $120^{\circ} \pm 3^{\circ}\text{F}$ ($49^{\circ} \pm 1.7^{\circ}\text{C}$). After cooling to room temperature, the primer shall be examined for conformity to 3.6 and 4.6.3.1. Primers with flash points below 120°F (49°C) and/or containing reactive diluents in their formulation shall be conditioned for a minimum of 6 months at 68°F (20°C). After conditioning, the primer shall be examined for conformity to 3.6 and 4.6.3.1."

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6.1 Intended use. After line 14: Add: "The specific torque values listed in the specification are only valid for the material surfaces and conditions of the tests. Actual performance is design and application sensitive and should be verified by testing for critical applications."

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Delete: Tables VII and VIII.

Preparing activity:
Army - MR

Project 8030-0702

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