

Military Rubber Specifications

Note: In keeping with the Federal Acquisition Streamlining Act (FASA), most of these specifications are in the process of being revised to AMS specifications. For the most current information, contact the O-Ring Division.

Rubber Specification		Parker Compound	Temperature Range ⁽²⁾	Description
Class	Grade			
ZZ-R-765E				
1a. 1b. 2a. 2b.	40	S1198-40	- 103 to 437°F (-75 to 225°C)	Rubber, Silicone
1a. 1b. 2a. 2b.	50	S0899-50	- 103 to 437°F (-75 to 225°C)	Low and High Temperature Resistant, Low Compression Set
1a. 1b.	70	S0383-70	- 103 to 437°F (-75 to 225°C)	Low and High Temperature Resistant, Low Compression Set
2a. 2b.	80	S0614-80	- 80 to 437°F (-62 to 225°C)	Low Temperature Resistant, Low Compression Set
2a. 2b.	70	S1224-70	- 80 to 437°F (-62 to 225°C)	High Temperature Resistant, Low Compression Set
2b.	60	S0613-60	- 80 to 437°F (-62 to 225°C)	High Temperature Resistant, Low Compression Set
Note: A-A-59588 supercedes ZZR-R-765E				
MIL-G-1149C- Gasket Materials, Synthetic Rubber, 50 and 65 Durometer Hardness				
Type I		C0267-50	(-20 to 212°F) (-29 to 100°C) ⁽²⁾	
Class 1				
MIL-R-3533B - Rubber, Synthetic; Sheet, Strip and Molded				
Type I		N0602-70	(-20 to 158°F) (-29 to 70°C) ⁽²⁾	
Grade B				
MIL-P-5315B - Packing, O-ring, Hydrocarbon Fuel Resistant (Jet Fuels)				
		N0602-70	(-65 to 160°F) (-54 to 71°C)	(Military O-ring series MS29512 and MS29513)
Note: AMS-P-5315 supercedes MIL-P-5315B				
MIL-P-5510C - Gasket, Straight Thread Tube Fitting Boss (MIL-H-5606 Petroleum Based Hydraulic Fluid,				
		N0507-90		(-45 to 160°F) (-43 to 71°C) ⁽²⁾ (Military O-ring series MS28778)
Note: AMS-P-5510 supercedes MIL-P-5510				
MIL-DTL-7362D - Rubber, Sheet, Molded and Extruded Shapes, Synthetic Oil Resistant (AMS3021)				
Types I, II		47-071	Synthetic, Di-Ester Base Lubricant (-65 to 275°F) (-54 to 135°C) ⁽²⁾	(Military O-ring series MS29561 and WAS617)
Note: AMS-R-7362 supercedes MIL-R-7362D				
MIL-G-21569B - Gaskets, Cylinder Liner Seal, Synthetic				
Class I		N0674-70 ⁽¹⁾		(Room temperature to 194°F) (RT to 90°C)
Class II		S0604-70		
MIL-DTL-25732C - Packing, Preformed, Petroleum Hydraulic Fluid Resistant (MIL-H-5606)				
		N0304-75		Petroleum Base Hydraulic Fluid (-65 to 275°F) (-54 to 135°C) ⁽²⁾ (Military O-ring series MS28775)
MIL-R-25988 - Rubber Fluorosilicone Elastomer, Oil and Fuel Resistant (MIL-H-5606 Petroleum Base)				
Type 1, Class 1, Grade 60/3		LM158-60		Hydraulic Fluid, Fuel, Air (-90 to 350°F) (-68 to 176°C) ⁽²⁾
Type 1, Class 1, Grade 70/1		LM159-70		
Type 1, Class 1, Grade 80/4		LM160-80		
Type 1, Class 3, Grade 75/2		L1077-75 ⁽¹⁾		
Note: AMS-R-25988 supercedes MIL-R-35988				
MIL-P-82744 - Packing, Preformed, Otto Fuel Compatible				
		E0515-80		(-65 to 250°F) (-54 to 121°C)
MIL-R-83248C, Type I - Rubber, Fluorocarbon Elastomer, High Temperature Fluid and Compression				
Class I		V0747-75, V1164-75, V1226-75		Set Resistant (-15 to 400°F) (-5 to 105°C)
Class 2		V0709-90		
Note: AMS-R-83248 supercedes MIL-R-83248C				
MIL-R-83485				
	Grade 80	VM835-75		Rubber, fluorocarbon Elastomer, Improved performance @ low Temp (-40 to 400°C)
Note: AMS-R-83485 supercedes MIL-R-83485				
MIL-P-83461B - Packings, Preformed, Petroleum Hydraulic Fluid Resistant, Improved Performance				
		N0756-75		(-65 to 275°F) (-54 to 135°C) ⁽²⁾
Note: AMS-P-5315 supercedes MIL-P-5315B				

Notes: When ordering parts made with a military, AMS or NAS specification material, see the section on ordering.

(1) Extra charges may apply for testing and documentation.

(2) These temperatures are limits for particular tests required by the specifications, but they do not necessarily represent operating temperature limits.

(3) Inactive for new design, refer to MIL-P-25732. See discussion on "Temperature" in the Basic O-Ring Elastomers Section (II).

Table 8-3: Military Rubber Specifications