

Military Specification O-rings

Drawing No.	Specifications	Sealing		Fluid	Recommended Temp. Range° F		Elastomer	Compound	Comments
		Static	Dynamic		Low	High			
AN 123951 thru AN 124050	AMS 7270	x	x	Aircraft fuels	-40	+302	Nitrile	4456-70	For use in aircraft fuels, both piston (gasoline) and jet (jet fuels) engines.
M25988/1	MIL-R-25988 Class 1, Grade 70	x	x	Aircraft fuels and lubricants	-70	+392	Fluorosilicone	1903-70	Blue color as required by MIL spec. Not recommended for high pressure dynamic applications.
M25988/2	MIL-R-25988 Class 3, Grade 75	x	x	Aircraft fuels and lubricants	-70	+437	Fluorosilicone	1904-75	Blue color as required by MIL spec. Higher modulus and higher temperature resistance than 1903-70.
M25988/3	MIL-R-25988 Class 1, Grade 60	x	x	Aircraft fuels and lubricants	-70	+392	Fluorosilicone	1902-60	Blue color as required by MIL spec. Lower durometer than 1903-70. For low pressure applications.
M25988/4	MIL-R-25988 Class 1, Grade 80	x	x	Aircraft fuels and lubricants	-70	+392	Fluorosilicone	1905-80	Blue color as required by MIL spec. Higher durometer than 1903-70.
M83248/1	MIL-R-83248 Class 1	x	x	Aircraft fuels and lubricants	-20	+400	Fluorocarbon	9009-75	Excellent resistance to compression set.
M83248/2	MIL-R-83248 Class 2	x	x	Aircraft fuels and lubricants	-20	+400	Fluorocarbon	9009-90	Higher durometer than 9009-75.
M83461/1A	MIL-P-83461	x	x	MIL-H-5606	-65	+275	Nitrile	4367-70	Better dynamic performance and longer service life at 257°F than 4067-70.
AS3578	AMS 7271	x		Aircraft fuels	-58	+257	Nitrile	4465-65	This drawing cover tube fitting sizes only.
AS3578		x	x	Aircraft fuels	-58	+257	Nitrile	4465-65	Not recommended for high pressure dynamic applications.
AS3582	AMS 3304	x	x	Dry heat and petroleum based lube oils	-85	+400	Silicone	1235-70	Not recommended for high pressure dynamic applications.
MS9385	AMS 7267	x		Dry heat and petroleum based lube oils	-85	+500	Silicone	1373-70	This drawing cover tube fitting sizes only.
MS9386		x	x	Dry heat and petroleum based lube oils	-85	+500	Silicone	1373-70	This drawing covers all sizes except the tube fitting sizes.
MS9387	AMS 7278	x		Aircraft fuels and lubricants	-20	+400	Fluorocarbon	9009-75	This drawing cover tube fitting sizes only.
MS28775	MIL-P-25732	x	x	MIL-H-5606	-65	+275	Nitrile	4067-70	MIL-H-5606 is the petroleum base hydraulic fluid used in military aircraft (inactive for new designs. see M 83461/1A)
MS28900	AMS 3209	x		Ozone	-40	+212	Neoprene	3110-70	For weather resistant seals. (Non-standard sizes)
MS29512	MIL-P-5315	x		Aircraft fuels	-65	+158	Nitrile	0457-60	This drawing cover tube fitting sizes only.
MS29513		x	x	Aircraft fuels	-65	+158	Nitrile	0457-60	This drawing covers all sizes except the tube fitting sizes.
NAS617	MIL-R-7362, Type 1	x	x	Synthetic diester jet engine lubricants (MIL-L-7808)	-65	+257	Nitrile	4043-70	This drawing cover tube fitting sizes only.
NAS1611	NAS 1613, REV2 or REV4	x	x	Phosphate ester hydraulic fluid (Skydrol)	-65	+250	Ethylene Propylene		This drawing covers all sizes except tube fitting sizes. Inactive for new design.
NAS1612	NAS 1613, REV2 or REV4	x			-65	+250	Ethylene Propylene		This drawing covers tube fitting sizes only. Inactive for new design.

ABBREVIATIONS USED ABOVE: AMS--Aerospace Material Specification, AN--Army/navy; ASTM --American Society for Testing and Material s; M--Military; MS--Military Standard; NAS--National Aerospace Standard; SAE--Society of Automotive Engineers