

Material Properties: V90 (FKM)

NOTE - All testing done on AS568-214 size O-rings

Original Properties	AMS-7259 and MIL-R-83248C Type I Class 2	V90
Hardness, Shore A, ASTM D2240	90 ± 5	89
Tensile Strength, psi, ASTM D1414	1400 min.	1993
Elongation, %, ASTM D1414	100 min.	121
Specific Gravity, ASTM D297	As Determined	1.84
Temperature Retraction, ASTM D1329		
TR-10, degrees F	+5 or colder	+3
Air Aging ASTM D573, 70 hrs. at 518°F		
Hardness change, Shore A, ASTM D2240	-5 to +10	+4
% Tensile Strength change, ASTM D1414	-45 max.	-9
% Elongation change, ASTM D1414	-20 max.	+12
% Weight loss, ASTM D297	10 max.	3.7
Compression Set, ASTM D395 Method B and ASTM D1414, 22 hrs. at 392°F		
% Permanent set	25 max.	11.7
Compression Set, ASTM D395 Method B and ASTM D1414, 336 hrs. at 392°F		
% of Original Deflection	60 max.	44.2
ARM-200 fluid immersion, ASTM D471 and ASTM D1414, 70 hrs. at 392°F		
Hardness change, Shore A, ASTM D2240	-15 to 0	-10
% Tensile Strength change, ASTM D1414	-35 max.	-14
% Elongation change, ASTM D1414	-20 max.	+10
% Volume change, ASTM D471	+1 to +25	+15.1
Compression Set, ASTM D395 Method B and ASTM D1414, 70 hours at 392°F in ARM-200 fluid		
% Permanent set	20 max.	7.1
ASTM Fuel B immersion, ASTM D471 and ASTM D1414, 70 hrs. at 75°F		
Hardness change, Shore A, ASTM D2240	± 5	-1
% Tensile Strength change, ASTM D1414	-20 max.	-8
% Elongation change, ASTM D1414	-20 max.	-2
% Volume change, ASTM D471	0 to +5	+1

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Pub#2530
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