

# Material Properties: Low Temperature FKM LM426776 (Developmental Material)

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

Original Properties	AMS7379	LM426776
Shore A Durometer, ASTM D2240	75±5	78
Tensile Strength, MPa, ASTM D1414	8.96 min.	11.3
Ultimate Elongation, %, ASTM D1414	120 min.	163
<b>Air Aging ASTM D573, 70 hrs. at 270°C</b>		
Hardness change, Shore A, ASTM D2240	-10 to +5	-2
% Tensile Strength change, ASTM D1414	-45 max.	-23.8
% Elongation change, ASTM D1414	-10 max.	+9.1
% Weight change	-10 max.	-6.6
<b>Compression Set, ASTM D395 Method B and ASTM D1414, 200°C, various times</b>		
% Permanent set, 70 hours	20 max.	4.3
% Permanent set, 336 hours	55 max.	44.1
<b>Reference Oil 300 Immersion, ASTM D471 and ASTM D1414, 70 hrs. at 200°C</b>		
Hardness change, Shore A, ASTM D2240	-10 max.	0
% Tensile Strength change, ASTM D1414	-30 max.	-8.4
% Elongation change, ASTM D1414	-20 max.	+17.6
% Volume change, ASTM D471	0 to +10	+9.2
Compression Set, ASTM D395 Method B and ASTM D1414 70 hrs. @ 200°C in Reference Oil 300	25 max.	4.3
Compression Set, ASTM D395 Method B and ASTM D1414 336 hrs. @ 200°C in Reference Oil 300	55 max.	25.1
<b>MIL-PRF-83282 Immersion, ASTM D471 and ASTM D1414, 70 hrs. at 135°C</b>		
Hardness change, Shore A, ASTM D2240	-7 max.	-1
% Tensile Strength change, ASTM D1414	-25 max.	+5.2
% Elongation change, ASTM D1414	-15 max.	+8.1
% Volume change, ASTM D471	+6 max.	+1.2
Compression Set, ASTM D395 Method B and ASTM D1414 70 hrs. @ 135°C in MIL-PRF-83282	20 max.	12.5
Compression Set, ASTM D395 Method B and ASTM D1414 336 hrs. @ 135°C in MIL-PRF-83282	35 max.	19.2
<b>ASTM Fuel B Immersion, ASTM D471 and ASTM D1414, 70 hrs. at 25°C</b>		
Hardness change, Shore A, ASTM D2240	-10 max.	-2
% Tensile Strength change, ASTM D1414	-35 max.	-18.5
% Elongation change, ASTM D1414	-20 max.	+9.1
% Volume change, ASTM D471	+1 to +10	+4.8
<b>Low Temperature Glass Transition Temperature, ASTM D3418</b>		
DSC Tg, C	-40 or colder	-47
<b>Low Temperature Retraction, ASTM D1329</b>		
TR-10, degrees C	-38.3 or colder	-46

© Copyright 2019

The information contained herein is believed to be reliable, but no representation, guarantees or warranties of any kind are made to its accuracy or suitability for any purpose. The information presented herein is based on laboratory testing and does not necessarily indicate end product performance. Full scale testing and end product performance are the responsibility of the user.