

## Material Properties: Simriz® 498 (FFKM)

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

Temperature Range: -5°C to +320°C

NOTE: Simriz 498 offers outstanding chemical and solvent resistance including compatibility with Nitric Acid and amine chemicals. It also exhibits excellent heat resistance up to 320°C.

Original Properties	AMS 7257C	Simriz 498
Hardness, Shore A, ASTM D2240	70 to 80	78
Tensile Strength, psi, ASTM D1414	1500 min.	2650
Ultimate Elongation, %, ASTM D1414	120 min.	161
<b>AMS-3021 Fluid Immersion, ASTM D471 and ASTM D1414, 70 hrs. at 175°C</b>		
Hardness change, Shore A, ASTM D2240	± 5	0
% Tensile Strength change, ASTM D1414	-10 max.	-9
% Elongation change, ASTM D1414	-15 max.	-7
% Volume change, ASTM D471	0 to +5	+1.0
<b>AS1241 Type IV fluid immersion, ASTM D471 and ASTM D1414, 70 hrs. at 125°C</b>		
Hardness change, Shore A, ASTM D2240	-15 to 0	-1
% Tensile Strength change, ASTM D1414	-40 max.	-12
% Elongation change, ASTM D1414	-15 max.	+2
% Volume change, ASTM D471	0 to +15	+2.9
<b>ASTM Reference Fuel B Immersion, ASTM D471 and ASTM D1414, 70 hrs. at 23°C</b>		
Hardness change, Shore A, ASTM D2240	± 5	-1
% Tensile Strength change, ASTM D1414	-20 max.	-13
% Elongation change, ASTM D1414	-15 max.	+2
% Volume change, ASTM D471	0 to +5	+0.4
<b>Air Oven Aging, ASTM D573 and ASTM D1414, 70 hrs. at 290°C</b>		
Hardness change, Shore A, ASTM D2240	± 5	0
% Tensile Strength change, ASTM D1414	-20 max.	-3
% Elongation change, ASTM D1414	-5 max.	+2
% Weight change, ASTM D297	-5 max.	-0.5
<b>Compression Set, ASTM D395 Method B and ASTM D1414 70 hrs. at 230°C</b>		
% Permanent set	40 max.	19.5
<b>Low Temperature Retraction, ASTM D-1329</b>		
TR-10, degrees C	+5 max.	0
<b>Special Testing, not part of AMS 7257C</b>		
<b>Compression Set, ASTM D395 Method B and ASTM D1414 70 hrs. at 600°F, 25% squeeze</b>		
% Permanent Set		40
Cracking or rupture		NONE



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