

## Material Properties: Simriz® 495 (FFKM)

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

Temperature Range: -5°C to +230°C

NOTE: Simriz 495 offers outstanding chemical and solvent resistance including compatibility with Nitric Acid and amine chemicals. It also exhibits excellent heat resistance up to 230°C.

Original Properties	Simriz 495
Color	Black
Hardness, Shore A, ASTM D2240	83
Tensile Strength, Mpa, ASTM D1414	18.0
Tensile Strength, psi, ASTM D1414	2610
% Elongation change, ASTM D1414	160
100% Modulus, Mpa, ASTM D1414	10.9
100% Modulus, psi, ASTM D1414	1580
<b>Compression Set, ASTM D395 Method B and ASTM D1414</b>	
% of Original Deflection, 70 hrs. at 200°C	23
% of Original Deflection, 70 hrs. at 230°C	35
<b>Compression Set in 69% Nitric Acid at 80C, ASTM D395 Method B and ASTM D1414</b>	
% Permanent set, 70 hrs	2%
% Permanent set, 160 hrs	2%
% Permanent set, 300 hrs	3%
% Permanent set, 500 hrs	4%
% Permanent set, 700 hrs	4%
% Permanent set, 1000 hrs	4%
<b>Nitric Acid 20% Immersion, ASTM D471, 70 hrs. at 100°C</b>	
% Volume change, ASTM D471	+1.3
<b>Sulfuric Acid 5% Immersion, ASTM D471, 70 hrs. at 80°C</b>	
% Volume change, ASTM D471	+0.4
<b>Water Bomb Immersion, ASTM D471, 70 hrs. at 200°C</b>	
% Volume change, ASTM D471	+6.9
<b>Low Temperature Glass Transition Temperature, ASTM D3418</b>	
DSC Tg, C	-7C

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