

Material Profile: Simriz® 481

Simriz 481 perfluoroelastomer compound was developed as a low durometer and high elongation compound for use in a wide range of applications. Simriz 481 also offers low temperature capabilities and almost universal chemical resistance.

Features and Benefits

- Low durometer
- High elongation
- Wide chemical compatibility
- Low temperature capabilities

Recommended Applications

- Acids
- Bases
- Alcohols
- Aldehydes
- Amines
- Triethylamine
- Sodium Hydroxide
- Steam/Hot Water
- Chemical & Hydrocarbon Processing
- Aromatic/Aliphatic Oils
- Ethers
- Esters
- Ketones
- MEK
- Nitric Acid
- Oxidizers



Black Perfluoroelastomer
Service Temperature Range: - 4 to 450°F

Typical Physical Properties

Color	Black
Shore A Durometer	70
Tensile Strength, psi (MPa)	2480 (17.1)
Elongation	260%
Compression Set: 70 hrs. at 200°C	27%
Service Temperature Range, °C (°F)	-20 to 230 (-4 to 450)

NOTE - International Seal, Co. (ISC) is a wholly owned subsidiary of Freudenberg-NOK.

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.

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Material Properties: Simriz® 481 (FFKM)

Note: Simriz 481 is a nominal 70 durometer perfluoro material. Simriz 481 offers wide chemical resistance. Simriz 481 should be considered for applications where lower hardness or better low temperature properties are desired.

Original Properties	Simriz 481
Color	Black
Hardness, Shore A, ASTM D2240	71
Tensile Strength, MPa, ASTM D412 Die C	17.1
Tensile Strength, psi, ASTM D412 Die C	2480
Ultimate Elongation, %, ASTM D412 Die C	260
100% Modulus, MPa, ASTM D412 Die C	3.7
100% Modulus, psi, ASTM D412 Die C	535
Low Temperature Glass Transition Temperature, ASTM D3418	
DSC Tg, C	-20
Temperature Retraction, ASTM D1329	
TR-10, degrees C	-14
Compression Set, ASTM D1414 and ASTM D395 Method B, AS568-214 size O-rings, 70 hours at 200°C	
% Permanent Set	27
Fluid Immersion - Water Bomb, ASTM D471, 70 hrs. at 200°C	
Volume Change, %	+6.3

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