

Material Profile: Simriz® 484

Simriz 484 perfluoroelastomer was especially developed for the food handling and pharmaceutical industries. Simrit 484 provides excellent chemical and temperature resistance and low contamination from extractables.

Features and Benefits

- FDA & USP Class VI compliant*
- Excellent chemical compatibility
- High temperature resistant
- Suitable for Water For Injection (WFI) Systems
- Suitable for Steam-In-Place (SIP) cleaning
- Suitable for ozonated deionized water

Recommended Applications

- Acetic Acids
- Acetone
- Citric Acid
- Hydrogen Peroxide
- Isopropyl Alcohol
- Methyl Ethyl Ketone
- Mineral Oil
- NaOH
- Nitric Acid
- Sodium Hypochlorite
- Soybean Oil
- Steam (<150° C [302°F])
- Steam (>150° C [302°F])
- Toluene
- Xylene



Black Perfluoroelastomer
Service Temperature Range: 20 to 450°F

Typical Physical Properties

Color	Black
Shore A Durometer	75
Tensile Strength, psi (MPa)	3210 (22.1)
Elongation	165%
Compression Set: 70 hrs. at 200°C	34%
Service Temperature Range, °C (°F)	-7 to 230 (20 to 450)
Volume Swell in Water, 70 hrs. at 200°C	6.5%

*Tested by NAMSA
USP intracutaneous toxicity and muscle implantation study in rabbits and USP systemic toxicity in mice.

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® 484 (FFKM)

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

NOTE - Simriz 484 is certified to USP Class VI and is FDA compliant for food processing applications.

Simriz 484 offers wide chemical resistance and excellent heat resistance.

Original Properties	Simriz 484
Color	Black
Hardness, Shore A, ASTM D2240	74
Tensile Strength, MPa, ASTM D1414	22.0
Tensile Strength, psi, ASTM D1414	3190
Ultimate Elongation, %, ASTM D1414	170
100% Modulus, MPa, ASTM D1414	8.0
100% Modulus, psi, ASTM D1414	1160
Compression Set, ASTM D1414 and ASTM D395 Method B, AS568-214 size O-rings, times and temperatures as shown	
% Permanent Set, 70 hrs. at 200°C	32
% Permanent Set, 168 hrs. at 200°C	36
20% Sulfuric Acid Immersion, ASTM D471, 70 hrs. at 95°C	
Volume Change, %	+1.2
20% Nitric Acid Immersion, ASTM D471, 70 hrs. at 95°C	
Volume Change, %	+27
Hexamethylenediamine Immersion, ASTM D471, 70 hrs. at 140°C	
Volume Change, %	+6.8
Water Bomb Immersion, ASTM D471, 70 hrs. at 200°C	
Volume Change, %	+5.3
Low Temperature Glass Transition Temperature, ASTM D3418	
DSC Tg, C	-7C

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