

Material Profile: Simriz® 488

Simriz 488 was specifically developed for high temperature applications. Simriz 488 offers excellent plasma resistance and minimum particulation in a wide range of plasma environments.

Features and Benefits

- High temperatures capabilities
- Excellent plasma resistance
- Minimum particulation
- High physical properties
- Wide chemical resistance
- Cost-effective

Recommended Dry Processes

- Deposition: LPCVD, CVD, APCVD, HDPCVD, PECVD, RPCVD, SACVD
- Plasma etch: oxide and metal
- Ashing
- Metalization: PVD, evaporation, sputtering
- Ion Implant
- RTP
- Oxidation
- Diffusion
- Lamp Anneal



White Perfluoroelastomer
Service Temperature Range: - 6 to 300°C

Equipment Locations

- Chamber Lid Seals
- Bell Jar Seals
- Endpoint Windows
- Gas Inlet Seals
- Isolator Valve Seals
- KF Fittings
- Slit Valve Seals
- Valve Seals
- Window Seals

Typical Physical Properties

Color	White
Shore A Durometer	70
Tensile Strength, psi (MPa)	2920 (20.1)
Elongation	190%
Modulus at 100% Elongation, psi (MPa)	825 (5.7)
Compression Set: 70 hrs. at 275°C	28%
Service Temperature Range, °C (°F)	-6 to 300 (21 to 570)

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® 488 (FFKM)

Note: Simriz 488 is designed for demanding high temperature static or dynamic sealing applications in many dry chemical environments. Simriz 488 is suited for many oxidizing plasma chemistries. Simriz 488 also exhibits outstanding chemical resistance.

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

Original Properties	Simriz 488
Color	White
Hardness, Shore A, ASTM D2240	73
Tensile Strength, MPa, ASTM D1414	17.0
Tensile Strength, psi, ASTM D1414	2465
Ultimate Elongation, %, ASTM D1414	190
100% Modulus, MPa, ASTM D1414	5.7
100% Modulus, psi, ASTM D1414	825
Temperature Retraction, ASTM D1329	
TR-10, degrees C	0
Compression Set, ASTM D1414 and ASTM D395 Method B, AS568-214 size O-rings, Times and Temperatures as noted	
% Permanent Set, 70 hours at 200°C	18
% Permanent Set, 70 hours at 250°C	23
% Permanent Set, 70 hours at 275°C	27
% Permanent Set, 504 hours at 275°C	45
Water Bomb Immersion, ASTM D471, 70 hrs. at 200°C	
% Volume change	+3.8

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