

PERFLUOROELASTOMER (FFKM) SEALS



Designed for thermal stability and nearly universal protection against chemical attack, Freudenberg's proprietary family of Simriz® perfluoroelastomer compounds offers premier sealing performance. Simriz compounds approach PTFE chemical resistance and have excellent plasma resistance for dry processing.

Simriz perfluoroelastomer compounds accommodate a wide variety of industrial sealing requirements and are also available in custom-molded shapes. For chemical processing and other heavy industrial applications, Simriz 487, 495, and 499 demonstrate excellent chemical compatibility in demanding environments. At very low temperatures Simriz 481 is recommended, while Simriz 487 is a superior high-temperature compound. Simriz 485 is a general purpose low-cost compound for many applications. Simriz 495 exhibits improved acid resistance.

Simriz perfluoroelastomers provide superior sealing solutions for numerous aerospace applications. Simriz 498 and Z7257 were developed for high-temperature aerospace applications like jet engines and APUs. Simriz 498 offers superior compression set resistance at temperatures to 325 °C, with performance far exceeding any competitive materials. Simriz 498 exhibits heat resistance to 325 °C. Simriz 498 and Z7257 meet the AMS7257 specifications and are compatible with Mobil Jet Oil 254 and BP Turbo Oil 2197.

VALUES FOR THE CUSTOMER

Simriz perfluoroelastomer compounds provide cost-effective, reliable sealing in a wide range of applications including; automotive, chemical processing, petroleum refining, semiconductor, aerospace, medical, pharmaceutical, food and drug processing, and etc.

- Simriz perfluoroelastomers demonstrate a wide range of temperature stability
- Fully fluorinated monomers in Simriz compounds provide superior protection against chemical attack
- Simriz possesses the resilience of an elastomer with chemical resistance approaching that of PTFE
- Simriz O-rings and molded shapes are available in many different Simriz compounds



FEATURES AND BENEFITS

Physical Properties of Simriz Perfluoroelastomer Compounds

Material Property	Simriz Compound					
	481	485	487	495	498	Z7257
Color	black	black	black	black	black	black
Hardness, Shore A	70	75	75	80	75	75
Temperature Range	-7 to +230 °C +20 to 446 °F	-7 to +230 °C +20 to 446 °F	-6 to +300 °C +21 to 570 °F	-7 to +230 °C +20 to 446 °F	-6 to +325 °C +21 to 610 °F	-6 to +320 °C +21 to 610 °F
Tensile Strength	170 bar 2480 psi	185 bar 2690 psi	185 bar 2700 psi	180 bar 2600 psi	185 bar 2700 psi	170 bar 2450 psi
Elongation	260%	195%	170%	160%	160%	175%
Compression Set (70 hrs. at 230 °C)	32%	30%	21%	30%	20%	21%

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