



SceniRAZ®

Perfluoroelastomer O-RING

Scenic Seals

The Best Partner for
Industrial Sealing Solution



Perfluoroelastomer O-RING

Scenic o-rings play an important role for mechanical seals in preventing leakage of liquid or gas. There are at least 3 pcs of o-rings installed in a single cartridge mechanical seal. The selection of o-ring material will depend on the compatibility and operating condition of the process.

For extreme operating condition, Scenic's own Perfluoroelastomer (FFKM), Sceniraz o-ring is the recommended and preferred material, especially for corrosive and high temperature chemicals.

Scenic brand o-rings are your perfect choice for a long lasting and reliable sealing system.

Sceniraz® FFKM vs. Other O-Rings

Scenic compound	Material	Hardness (Shore A)	Temp. Range (°C)	Advantages	Application
4022	Sceniraz FFKM	75	-10~260	<ul style="list-style-type: none"> General purpose Excellent chemical resistant applications Good performance in steam/hot water 	<ul style="list-style-type: none"> Mechanical Seal Valves Pressure Reaction Vessels Air Compressor Agitator/ Mixer Pump Deepwater drilling Compressor High temperature pump Turbine Aerospace Automated machinery, industrial equipment Petroleum products Hydroelectric power Paint Industry Boiler Food Process Machine Filter
5030		80	-10~290	<ul style="list-style-type: none"> Broad chemical withstanding range Good performance in steam/hot water with thermal resistant Steam resistant with excellent compression set 	
5035		90	-10~290		
3010		75	-40~230	<ul style="list-style-type: none"> Excellent low temperature resistant Drilling tools used in deepwater applications 	
PFH	TFE/P	80	5~200	<ul style="list-style-type: none"> Abrasion resistant to high heat, acid / Alkali and steam. Capable of operating under high temperature up to 200°C in steaming processes 	
V6	Hiflour	75	-20~200	<ul style="list-style-type: none"> Good resistance to oxidation, oil, acid and fuel attack. Characterizing in excellent resistance to heat, chemical, oil, and ozone. Continuous service under high temperature in static sealing forces. 	
TV	FEP + FKM	90~95	-20~180	<ul style="list-style-type: none"> Excellent chemical, deformation and corrosion resistance Not applicable for media with slurry, dynamic or high pressure. 	
TF	FEP+Silicon	85~90	-60~200	<ul style="list-style-type: none"> Suitable for low temperature requirement Excellent chemical, deformation and corrosion resistance Not applicable for media with slurry, dynamic or high pressure. 	
TP	PFA + FKM	90~95	-20~200	<ul style="list-style-type: none"> Outstanding wear and physical properties. Better MTBF compares to FEP. Not applicable for dynamic or high pressure. 	
TS	PFA+Silicon	85~90	-60~260	<ul style="list-style-type: none"> Wide application range of temperature MTBF is better than FEP. Not applicable for media with slurry, dynamic or high pressure. 	

SceniRAZ® 4022

Technical Datasheet

SceniRAZ® 4022, a black Perfluoroelastomer FFKM, is designed to withstand a broad range of chemicals and temperatures. On the basis of cost-performance ratio, SceniRAZ® 4022 is an ideal choice for general-purpose use in the chemical process industry specifically. With its excellent resistance to acids, bases, amines, and other aggressive chemicals, this compound delivers good performance in a wide range of industrial applications and mixed process streams. This compound has a service temperature range from -10°C to 260°C.

Features and Benefits

- ◎ Excellent resistance to aggressive chemicals (acid, base, amines)
- ◎ Excellent performance in steam and hot water
- ◎ High sealing efficiency and outstanding sealing function

Recommended Applications

- ◎ Chemical and process industry
- ◎ Valves, pumps, filters
- ◎ Pressure vessels
- ◎ Couplings and fittings
- ◎ Harsh chemical environments
- ◎ Compressors (high H₂S concentration environments)
- ◎ Painting and printing technology

Typical Physical Properties

Color	Black	
PROPERTIES	ASTM	VALUE
Hardness, (Shore A)	D2240	75 -/+5
Tensile Strength psi, (MPa)	D1414	2392 (16.5)
Elongation, %, min	D1414	171
Modulus at 100% psi, (MPa), min	D1414	1009 (6.96)
Compression Set, 70 Hrs@ 200° C	D395, Method B	17.4
Minimum Operating Temperature	-10°C	
Maximum Operating Temperature	260°C	

★ EVEN THOUGH ELONGATION PROPERTY IS INDICATED, MOST PERFLUORELASTOMER MATERIALS SHOULD NOT BE STRETCHED FOR OPTIMAL PERFORMANCE.

SceniRAZ® 5030/5035

Technical Datasheet

SceniRAZ® 5030 / 5035, one of our specialized line of perfluoroelastomers, is formulated for the use under the harsh thermal and chemical environments that can be found in many chemical and hydrocarbon processes. It is the most popular compound which provides the broadest spectrum of use due to its wider chemical withstanding range, as well as improved thermal and steam resistance. It is well suited in many applications within the chemical process industry, such as flow controllers, connectors, and spraying equipments.

Features and Benefits

- Broad chemical withstanding range
- Excellent performance in steam and hot water
- Low volume swell
- Cost effective due to longer and better seal integrity

Recommended Applications

- Chemical injectors and reactors
- Ink handling and spraying equipments
- Flow controllers/ metering equipments
- Compressors
- Dispensers
- Mechanical seals

Typical Physical Properties

Color	Black	
PROPERTIES	ASTM	VALUE
Hardness, (Shore A)	D2240	SceniRAZ 5030 80 -/+5
		SceniRAZ 5035 90 -/+5
Tensile Strength psi, (MPa)	D1414	2907(20.5)
Elongation, %, min	D1414	185
Modulus at 100% psi, (MPa), min	D1414	1356 (9.35)
Compression Set, 70 Hrs@ 200 °C	D395, Method B	26.3
Minimum Operating Temperature	-10 °C	
Maximum Operating Temperature	290 °C	

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SceniRAZ® 3010

Technical Datasheet

SceniRAZ® 3010, is specially designed for equipments that operate under low temperature environment, such as deepwater drilling applications. It also exhibits an excellent resistance to a broad range of chemicals, which can be used for a variety of applications across chemical processing industry.

Features and Benefits

- Broad chemical resistance (acid, base, amines)
- Low temperature resistance
- High sealing efficiency

Recommended Applications

- Chemical processing applications
- Valves and pumps under low temperature environment
- Deepwater drilling equipment

Typical Physical Properties

Color	Black	
PROPERTIES	ASTM	VALUE
Hardness, (Shore A)	D2240	75 -/+5
Tensile Strength psi, (MPa)	D1414	2038(14.06)
Elongation, %, min	D1414	232
Modulus at 100% psi, (MPa), min	D1414	581 (4.01)
Compression Set, 70 Hrs@ 200° C	D395, Method B	34.8
Minimum Operating Temperature	-40°C	
Maximum Operating Temperature	230°C	
Specific Gravity (g/cm³)	1.96	

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