

Parofluor™

Advanced Perfluorinated Elastomers

fact sheet

UPDATED 4/02

What is Parofluor™?

Parofluor is a unique advanced perfluorinated elastomer (FFKM) developed and produced exclusively by Parker Hannifin's Seal Group. Perfluorinated elastomers provide performance beyond all other available elastomer families. *Parofluor* has outstanding retained resiliency as compared with other perfluorinated elastomers, and is formulated specifically for use in the most aggressive sealing applications.



What is Parofluor ULTRA™?

Parofluor ULTRA is a new generation of ultra high-performance perfluorinated elastomers. These materials offer major advantages over traditional fluoroelastomer and other perfluorinated materials:

- Ultra-high temperature resistance (up to 320°C/608°F)
- Broad chemical resistance
- Ultra-high purity

See reverse for *Parofluor ULTRA* material specifications.

Parofluor Applications:

Parofluor and *Parofluor ULTRA* materials solve application problems within the critical environments of semiconductor fabrication, aerospace, chemical processing, energy exploration and production, pharmaceutical, and other harsh fluid handling processes.

Parofluor and *Parofluor ULTRA* materials offer excellent compression set resistance, superior thermal stability and compatibility with a wide range of harsh chemistries, making them the ideal solution for sealing applications that exceed the limits of other high performance elastomers.



Parofluor and Parofluor ULTRA Availability:

Parofluor and *Parofluor ULTRA* materials are available from 65 to 90 shore A hardness in black and white formulations. Products are available in standard, non-standard, large diameter continuous molded and JIS O-rings, slab or sheet stock, custom molded shapes, PIP (press-in-place) profiles and rubber-to-metal bonded seals.

Parofluor and Parofluor ULTRA Advantages:

- Ultra-high temperature resistance (up to 320°C/608°F)
- Broad chemical resistance
- Excellent compression set resistance
- Economical choice for improved predictability of maintenance intervals
- Ultra High Purity (UHP) manufacturing systems
- In-house tooling capability
- 1-2 weeks standard lead time
- Local stocking distributor network

Parker Advantages:

- Leading technology in elastomer development
- Total sealing product solutions
- Broadest range of material offering
- Finite Element Analysis (FEA)
- Applications engineering assistance
- TOTAL inPHorm™ seal design software assistance

**For additional information about
Parofluor™ and *Parofluor ULTRA™*,
visit our website www.parofluor.com**

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Parofluor^{1M} Materials Offering

Parker Compound	Color	Nominal Hardness (Shore A)	Temperature Range	Market	General Application
V1266-65	White	65	-15°C to 300°C (5°F to 572°F)	Semiconductor	Ion Implant, Metal CVD, Sputtering (PVD), Diffusion Furnaces, LPCVD, RTP, APCVD, HDPCVD, PECVD, Ashing, Plasma Etch, Plasma Strip
				Pharmaceutical	Low contamination from extractables in pharmaceutical and food handling applications where sterilization is required
V8545-75	Black	75	-15°C to 300°C (5°F to 572°F)	Semiconductor	Ion Implant, Metal CVD, Sputtering (PVD), Diffusion Furnaces, LPCVD, RTP, Wafer Etch, Cleaning, Rinsing, Stripping, UPDI
				Chemical Processing	Mechanical Seals, Pumps, Valves, Instrumentation, Flow Controls, Meters, Connectors, Sight Glasses, Blenders, Agitators, Mixers, Reactors, Transportation
				Energy	Down Hole (Sour Gas), Drilling Mud, Amine-Based Fluids, Steam, and other aggressive chemicals
				Industrial	Paint Spray, Fluid Handling
V8562-75	White	75	-15°C to 300°C (5°F to 572°F)	Semiconductor	Ion Implant, Metal CVD, Sputtering (PVD), Diffusion Furnaces, LPCVD, RTP, APCVD, HDPCVD, PECVD, Ashing, Plasma Etch, Plasma Strip
				Pharmaceutical	Low contamination from extractables in pharmaceutical and food handling applications where sterilization is required
V8588-90	Black	90	-15°C to 280°C (5°F to 536°F)	Chemical Processing	Mechanical Seals, Pumps, Valves, Instrumentation, Flow Controls, Meters, Connectors, Sight Glasses, Blenders, Agitators, Mixers, Reactors, Transportation
				Energy	Down Hole (Sour Gas), Drilling Mud, Amine-Based Fluids, Steam, and other aggressive chemicals
				Industrial	Paint Spray, Fluid Handling
V8581-90	White	90	-15°C to 300°C (5°F to 572°F)	Semiconductor	Ion Implant, Metal CVD, Sputtering (PVD), Diffusion Furnaces, LPCVD, RTP, APCVD, HDPCVD, PECVD, Ashing, Plasma Etch, Plasma Strip
				Pharmaceutical	Low contamination from extractables in pharmaceuticals and food handling applications where sterilization is required

Parofluor ULTRATM Materials Offering

Parker Compound	Color	Durometer	Temperature Range	Features	Market	General Application
FF102-75	Black	75	-15 to 275°C (5°F to 525°F)	Acid resistant	Chemical Processing	Mechanical Seals, Pumps, Valves, Instrumentation, Flow Controls, Meters, Connectors, Sight Glasses, Blenders, Agitators, Mixers, Reactors, Transportation
FF200-75	Black	75	-15°C to 320°C (5°F to 608°F)	High temperature Low compression set Chemical resistance	Semiconductor	Thermal processes: Oxidation/Diffusion, LPCVD, RTP Plasma/Gas Processes: Metal CVD, Copper Wet Processes: Wafer Etch, Clean/Rinse, Stripping, Copper Plating
					Chemical Processing	Mechanical Seals, Pumps, Valves, Instrumentation, Flow Controls, Meters, Connectors, Sight Glasses, Blenders, Agitators, Mixers, Reactors, Transportation
					Energy	Down Hole (Sour Gas), Drilling Mud, Amine-Based Fluids, Steam, and other aggressive chemicals
					Industrial	Paint Spray, Fluid Handling
FF202-90	Black	90	-15 to 320°C (5 to 608°F)	High temperature Low compression set Chemical resistance	Semiconductor	Thermal Processes: Diffusion Furnaces, LPCVD, RTP Plasma/Gas Processes: Metal CVD, Sputtering (PVD)
					Chemical Processing	Mechanical Seals, Pumps, Valves, Instrumentation, Flow Controls, Meters, Connectors, Sight Glasses, Blenders, Agitators, Mixers, Reactors, Transportation
					Oilfield Industrial	Down Hole (Sour Gas), Drilling Mud, and other aggressive chemicals Paint Spray, Fluid Handling
FF350-75	White	75	-15°C to 316°C (5°F to 600°F)	High purity High temperature Low compression set	Semiconductor	Thermal Processes: Diffusion Furnaces, RTP Plasma/Gas Processes: Metal CVD, HDPCVD/PECVD/APCVD, Ashing, Plasma Etch and Plasma Strip Wet Processes: Wet Etch, Copper Plating
					Pharmaceutical	Low contamination from extractables in pharmaceutical and food handling applications where sterilization is required
FF352-75	White	75	-15 to 316°C (5 to 600°F)	Clean High temperature Low compression set	Semiconductor	Thermal Processes: Diffusion Furnaces, RTP Plasma/Gas Processes: Metal CVD, HDPCVD/PECVD/APCVD, Ashing, Plasma Etch, Plasma Strip Wet Processes: Wet Etch, Copper Plating
					Pharmaceutical	Low contamination from extractables in pharmaceutical and food handling applications where sterilization is required
FF354-65	White	65	-15 to 316°C (5 to 600°F)	High purity High temperature Low closure force	Semiconductor	Thermal Processes: Diffusion Furnaces, RTP Plasma/Gas Processes: Metal CVD, HDPCVD/PECVD/APCVD, Ashing, Plasma Etch, Plasma Strip Wet Processes: Wet Etch, Copper Plating
					Pharmaceutical	Low contamination from extractables in pharmaceutical and food handling applications where sterilization is required
FF500-75	Black	75	-15°C to 275°C (5°F to 525°F)	Broad chemical resistance	Semiconductor	Wet Processes: Wet Etch, Stripping, Electro-Copper Plating
					Chemical Processing	Mechanical Seals, Pumps, Valves, Instrumentation, Flow Controls, Meters, Connectors, Sight Glasses, Blenders, Agitators, Mixers, Reactors, Transportation
					Oilfield Industrial	Down Hole (Sour Gas), Drilling Mud, Amine-Based Fluids, Steam, and other aggressive chemicals Paint Spray, Fluid Handling

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