

Parofluor™

Advanced Perfluorinated Elastomers

fact sheet

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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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