

Ultra-High Purity UHP Manufacturing Process

What is UHP?

“UHP,” or Ultra High Purity, describes the closely controlled, ultra-clean process Parker employs to produce sealing products from fluorocarbon, HiFluor™, Parofluor™ and Parofluor ULTRA™ materials. UHP also describes the environment in which these materials are formulated, produced and packaged.

What makes UHP products better?

Many critical manufacturing environments, such as semiconductor fabrication and pharmaceutical processing, require sealing products that are of a purity superior to that of standard industrial O-rings. Engineered sealing products made with Parker’s stringent UHP process are ideal for these types of applications. UHP reduces contamination, and that translates to increased equipment uptime and performance.

How does Parker maintain and monitor UHP quality?

The UHP process is performed in a separate manufacturing cell, using equipment that is dedicated to the manufacture of premium fluoroelastomers. This state-of-the-art cell prevents the contamination of materials from dust, mold sprays, foreign materials, handling and other typical sources. From material formulation to final product packaging, each step in the UHP manufacturing process is subject to measurement, evaluation and statistical process control. The result is a product with unparalleled purity and consistency.



Parker’s UHP processing keeps seals clean and contamination-free, from start to finish.

Parker UHP Features:

- Premium fluoroelastomer molded products (fluorocarbon, HiFluor™, Parofluor™, Parofluor ULTRA™)
- Clean room materials mixing
- Enclosed critical environment clean room manufacturing
- Dedicated equipment for extrusion, tooling, molding, post-cure and finishing for reduced contamination
- Vacuum molding for reduced extractables
- Finishing process with non-broken skin surface for improved sealability
- Clean room packaging (with class 100 packaging available)
- Enhanced SPC control on all critical characteristics
- Complete batch and cure date traceability

Parker UHP Advantages:

- Lower extractables from seal materials
- Reduced product or system contamination from seals
- Cleaned and individually packaged seals
- Increased customer system uptime and reliability

fact sheet

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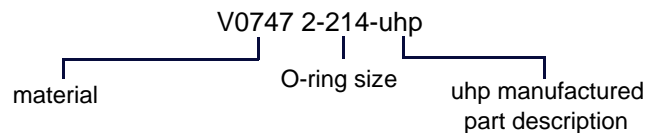
Parker Seals

UHP Product Availability

UHP products are available in fluorocarbon HiFluor™, Parofluor™, and Parofluor ULTRA™ materials such as those listed in the table below. These materials can be manufactured using the UHP process. They are available as O-rings in standard, metric, unlimited large diameters and other non-standard sizes, and mold shapes, sheets and slabs



Parker Seal part numbers — an explanation:



Parker Seal Material Families	Parker Seal Typical UHP Compounds*	Color
Parofluor ULTRA™ (FFKM)	FF200-75 FF350-75 FF500-75	Black White Black
Parofluor™ (FFKM)	V8545-75 V8562-75	Black White
HiFluor™ High performance fluoroelastomer	V3819-75	Black
Fluorocarbon (FKM)	V0747-75 V0884-75 V1274-75 V1280-65	Black Brown Black Green

*Parker continues to develop premium seal materials. For updates on available materials, contact Parker's O-ring Division.

4/01-3M-CE

How to Order UHP Products:

All Parofluor ULTRA™, Parofluor™, and HiFluor™ products are manufactured using the UHP process.

Use standard part numbers when ordering these products.

For example: FF350 2-214

To designate UHP manufacturing for Fluorocarbon (FKM) products, use "-uhp" at the end of the part number.

For example: V0747 2-214-uhp