



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 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 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 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

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 diameter and other non-standard sizes, and molded shapes, sheets and slabs