

## **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.

## **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.

## **What is Parofluor ULTRA?**

Parofluor ULTRA materials are high-performance perfluorinated elastomers designed specifically for use in harsh operating environments where superior thermal stability, chemical resistance and ultra-high purity are required. Parofluor ULTRA materials incorporate new elastomer polymer technology to offer maximum resistance to a broad range of process chemistries. These materials are formulated to retain their physical properties at extremely high temperatures and reduce system contamination (see figures 1-5 on reverse). Seals made with Parofluor ULTRA materials are recommended for use in semiconductor fabrication equipment and in other critical applications where mean time between failures (MTBF) must be maximized. When used in plasma applications, seals made with Parofluor ULTRA materials offer improved plasma resistance and increased retained resiliency for longer seal life. In vacuum applications, Parofluor ULTRA materials have lower out gassing, lower permeation and lower weight loss, providing higher yields and productivity. In thermal applications, these materials provide improved stability at higher temperatures with low out gassing and extended seal force retained resiliency.

## **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

Parofluor ULTRA materials are available in a wide variety of configurations, including o-rings and molded shapes. They can also be bonded to metal for use on slit valve doors, vacuum fork blades and other fabrication equipment components. All Parofluor ULTRA products are manufactured in a dedicated ultra high purity environment to guard against contamination. Packaging processes are performed in a clean room environment.