

Dynarez™

Perfluoroelastomer O-Rings

HD Series

FFKM features a thermal resistance rating of 230°C and superior chemical compatibility. It is widely applied in petrochemical, semiconductor wafer fabrication, and pharmaceutical industries. This series demonstrates exceptional stability against strong acids, bases, organic solvents, and high-temperature steam. To ensure the highest purity, all products are cleaned and packaged within a Class-certified cleanroom.

Physical Characteristics

- ◆ **Maximum Continuous Service Temperature:** 230°C
- ◆ **Long-term Stability:** Excellent high-temperature sealing performance and reliability.
- ◆ **Mechanical Properties:** Superior physical integrity and durability.

Recommended Processes

- ◆ Reactors / Process Vessels
- ◆ Chemical and Steam Conveyance
- ◆ Wet Etch Processes
- ◆ Control Valves

Recommended Applications

- ◆ Chamber & Lid Seals
- ◆ Fitting & Connection Seals
- ◆ Gas Inlet & Outlet Seals
- ◆ Valve Seals

Temperature Range & Limitations

The recommended **maximum service temperature is 230°C**. Please note that continuous operation at the upper temperature limit may lead to **thermal hardening**, resulting in potential seal failure and reduced service life. Conversely, at the **lower temperature limit**, the elastomer's elasticity may decrease, which can adversely affect **sealing integrity**.



Typical Physical Properties		HD-W	HD-B
Max. Service Temperature		230°C	230°C
Physical Testing	Hardness (JIS-A)	76	81
	Tensile Strength (MPa)	20	22.3
	Elongation (%)	194	182
	100% Modulus (MPa)	7.6	9.4
Heat Resistance	Test Conditions	200°C × 70hr	200°C × 70hr
	Hardness Change	0	+2
	Tensile Strength Change (%)	+2	+5
	Elongation Change (%)	+6	+8
Compression Set	Test Conditions	200°C × 70hr	200°C × 70hr
	Compression Set (%)	13	16

Dynarez® offers a wide range of high-performance FFKM materials. While many of these grades are interchangeable, some are specifically engineered with unique properties for specialized applications. When selecting these materials as equivalent alternatives (cross-referencing), please ensure a thorough review of your specific operating conditions and requirements.