

Dynarez™

Perfluoroelastomer O-Rings

HD Series

FFKM features a thermal resistance rating of 250°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:** 250°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 250°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
	Color	white	black
	Max. Service Temperature	250°C	250°C
Physical Testing	Hardness (JIS-A)	69	70
	Tensile Strength (MPa)	20.1	22.8
	Elongation (%)	175	180
	100% Modulus (MPa)	7.1	8.0
Heat Resistance	Test Conditions	250°C × 70hr	250°C × 70hr
	Hardness Change	0	0
	Tensile Strength Change (%)	+55	+50
	Elongation Change (%)	+17	+14
Compression Set	Test Conditions	200°C × 70hr	200°C × 70hr
	Compression Set (%)	23	22

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.