

Dynarez™

Perfluoroelastomer O-Rings

TM Series

is an **unfilled**, highly fluorinated elastomer that leverages the advanced properties of **FFKM**. It features exceptional **plasma resistance**, making it ideal for equipment and components used in **semiconductor dry processes**, etching, and **CVD** applications. Its characteristic low particle generation and minimal **weight change rate** ensure long-term reliability across all dry process applications.



Physical Properties

- ◆ Excellent plasma resistance
- ◆ Ultra-low weight change rate
- ◆ High purity with low particle generation

Recommended Application Points

- ◆ Gas Inlet / Orifice Seals
- ◆ Chamber Lid Seals
- ◆ Isolation Valve Seals
- ◆ Bonded Gate Valve / Slit Valve Door Seals

Ultra-Low Particle Generation

Traditional **FFKM** sealing materials utilize inorganic fillers, such as **barium sulfate** or **titanium dioxide**, to resist plasma erosion. While these fillers protect the polymer and reduce weight loss, they leave behind residual particles after etching, which frequently leads to **particulate contamination**.

In contrast, our new **unfilled** or polymer-filled formulations consist only of carbon, fluorine, and oxygen. Although the erosion rate may be slightly faster, the material is completely converted **into volatile** by-products and exhausted from the system. This makes it the ideal choice for processes requiring the ultimate level of cleanliness.

| Typical Physical Properties | | |
|-----------------------------|--------------------------|-------|
| | Max. Service Temperature | 260°C |
| Physical Testing | Hardness (JIS-A) | 68 |
| | Tensile Strength (MPa) | 18.0 |
| | Elongation (%) | 226 |
| | 100% Modulus (MPa) | 3.1 |
| | Compression Set (%) | 21 |