

# Dynarez™

## Perfluoroelastomer O-Rings

### HM series

is a low-outgassing **FFKM (Perfluoroelastomer)** material specifically engineered for high-purity chemicals and advanced high-purity processes. It is an ultra-low outgassing O-ring material that achieves extremely low leakage levels through a specialized formula and cleanroom production, eliminating the need for post-process cleaning. Combining the inherent organic solvent resistance of the **FFKM** base material, it delivers exceptional performance as a chemical sealant for semiconductor wet processes.

### Chemical Resistance

It offers superior chemical corrosion resistance, outperforming standard elastomeric materials.

### Pressure Characteristics

The recommended maximum pressure is 5 MPa. However, this value may vary depending on specific operating conditions. Additionally, the use of back-up rings can enhance pressure resistance performance.

### Recommended Applications

- ◆ High-purity chemical manufacturing equipment
- ◆ Wet cleaning equipment
- ◆ Wet process equipment
- ◆ High-purity chemical pumps, valves, and fittings
- ◆ Wet process pumps, valves, and piping components

### Operating Temperature Range

The recommended temperature range is **0°C to 230°C**. Please note that continuous operation at the upper limit of this range may lead to **thermal hardening**, thereby shortening the product's service life. Conversely, at the lower limit of the temperature range, the elastomer's elasticity will **decrease**, which may result in a decline in **sealing performance**. Caution is advised when operating near these limits.

Typical Physical Properties		
	Max. Service Temperature	230°C
Physical Testing	Max. Service Temperature	74
	Tensile Strength (MPa)	20.3
	Elongation (%)	174
	100% Modulus (MPa)	9.0
Heat Resistance	Test Conditions	200°C × 70hr
	Hardness Change	-1
	Tensile Strength Change (%)	-4
Compression Set	Elongation Change (%)	+3
	Test Conditions	200°C × 70hr
	Compression Set (%)	17