

DuPont™ Kalrez® 9600 Perfluoroelastomer Parts

Product Description

Kalrez® 9600 Perfluoroelastomer Parts are designed for high purity, high temperature vacuum applications where seals are exposed to damaging Fluorine and Oxygen plasma radicals. In addition to its extremely low erosion rate and weight loss from plasma attack, this well-balanced material provides excellent chemical resistance to Ammonia, Ozone, and Water Vapor. Its outstanding resilience in compression and ultra-low outgassing at high temperature conditions makes it especially suitable for applications where purity of the process environment is paramount, such as Plasma-Enhanced Atomic Layer Deposition and Chemical Vapor Deposition processes used in fabricating next generation semiconductor chips. It has a maximum suggested application temperature of 315 °C and ultrapure cleaning and packaging are standard for all Kalrez® 9600 parts.

Suggested Applications

- Gas and plasma delivery systems
- Bonded gate and slit valve seals
- Reactor chamber seals
- Pendulum and isolation valve seals

Typical Physical Properties ¹	Kalrez® 9600
Color	Olive Green
Hardness, Durometer Shore A ²	70
100% Modulus ³ , MPa (psi)	4.76 (690)
Tensile Strength at Break ³ , MPa (psi)	13.43 (1948)
Elongation at Break ³ , %	218
Compression Set ⁴ , %, 70 hrs at 204 °C (400 °F)	15
Compression Set ⁴ , %, 70 hrs at 300 °C (572 °F)	43
Maximum Service Temperature ⁵ , °C (°F)	315 (600)

¹ Not to be used for specifications

² ASTM D2240 (Pellet test specimens)

³ ASTM D412/D1414 (AS568A K214 O-ring test specimens)

⁴ ASTM D395B/D1414, (AS568A K214 O-ring test specimens)

⁵ DuPont proprietary test method; performance will vary with seal design and application specifics

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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, discuss with your DuPont customer service representative and read Medical Caution Statement H-50103-3.

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