

DUPONT™ KALREZ® 4079

Perfluoroelastomer Parts

Product Description

DuPont™ Kalrez® 4079 perfluoroelastomer parts are a low compression set product for general purpose use in o-rings, diaphragms, seals and other parts used in the chemical process and aircraft industries. It is a carbon black filled product with excellent chemical resistance, good mechanical properties, and outstanding hot air aging properties.

It exhibits low swell in organic acids, inorganic acids and aldehydes, and has good response to temperature cycling effects. A maximum upper service temperature of **316°C (600°F)** is recommended, with short excursions to higher temperatures possible.

Important: Kalrez® 4079 is not recommended for use in hot water/steam applications or in contact with certain hot aliphatic amines, ethylene oxide, or propylene oxide.

Typical Physical Properties

Color	Black
Maximum Application Temperature	316°C (600°F)
Maximum Application Pressure	8.27 MPa (1200 psi)
Durometer, Shore A / Shore M (o-ring)	75 / 83
100% Modulus	7.24 MPa (1050 psi)
Elongation at Break	150%
Tensile at Break	16.88 MPa (2450 psi)
Compression set (70 hours at 204°C)	Pellet: 25% Size 214 O-Ring: 35%
Specific Gravity	2.02 g/cc

Additional Physical Properties

Tg (Glass Transition) / TR-10	-6.7°C (19°F) / -2°C (28°F)
Brittle Point	-50°C (-58°F)
Linear Coefficient of Thermal Expansion	$3.61 \times 10^{-4}/^{\circ}\text{C}$ ($2.01 \times 10^{-4}/^{\circ}\text{F}$)
Abrasion Resistance (Volume Loss)	119.7 mm ³
Volume Resistivity	4.87×10^{11} ohms/square
Surface Resistivity	5.61×10^{14} Ohm-cm

Dielectric Constant (150°C, 1 MHz)	9
Dissipation Factor (150°C, 1 MHz)	0.08506

Technical Information September 2010. Kalrez® is a registered trademark of DuPont™. Properties are typical values and not to be used for specification purposes.