

DuPont™ Kalrez® 1050LF

Technical Information — September 2010

Product Description

DuPont™ Kalrez® 1050LF perfluoroelastomer parts are a general purpose product for o-rings, seals, and other parts used in chemical process industries. It has good hot water/steam resistance, excellent amine resistance, and good compression set properties. The maximum suggested service temperature is 288°C (550°F). It is not recommended for use in organic or inorganic acids at high temperatures.

Typical Physical Properties¹

Color	Black
Maximum Application Temperature ² , °C (°F)	288 (550)
Maximum Application Pressure ² , MPa (psi)	10.34 (1500)
Durometer, Shore A ³	82
Durometer, Shore M (o-ring)	
100% Modulus ⁴ , MPa (psi)	12.40 (1800)
Elongation at break ⁴ , %	125
Tensile at break ⁴ , MPa (psi)	18.60 (2700)
Compression set ⁵ , % (70 hours at 204°C (400°F)) Pellet	35
Size 214 O-Ring	
Specific Gravity, g/cc	2.01

¹Not to be used for specification

²DuPont proprietary test method – maximum application temperature and pressure may vary with seal design and application specifics

³ASTM D2240 (pellet test specimen)

⁴ASTM D412, 500mm/min

⁵ASTM D395B



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DuPont™ Kalrez®
PERFLUOROELASTOMER PARTS

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Additional Physical Properties¹

Tg ² , °C (°F)	-3.1 (26)
TR-10 ³ , °C (°F)	-4 (24)
Brittle Point ⁴ , °C (°F)	-41 (-42)
Linear Coefficient of Thermal Expansion, /°C (/°F)	3.45x10 ⁻⁴ (1.92x10 ⁻⁴)
Abrasion Resistance ⁵ , (volume loss, cubic mm)	127.2
Coefficient of friction ⁶ (to steel)	
Static	0.542
Dynamic	0.356
Volume resistivity ⁷ , ohms/square	
Surface resistivity ⁷ , Ohm-cm	
Dielectric Constant ⁸ at 150°C and 1 MHz	5.061
Dissipation Factor ⁸ at 150°C and 1MHz	0.01828

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²DuPont proprietary test method – maximum application temperature and pressure may vary with seal design and application specifics

³ASTM D1329

⁴ASTM D746

⁵Din 53 516

⁶ASTM 1894

⁷ASTM D 257

⁸ASTM D150

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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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