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# 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 Properties<sup>1</sup>

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

<sup>1</sup>Not to be used for specification

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

<sup>3</sup>ASTM D2240 (pellet test specimen)

<sup>4</sup>ASTM D412, 500mm/min

<sup>5</sup>ASTM D395B



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### Additional Physical Properties<sup>1</sup>

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

<sup>1</sup>Not to be used for specification

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

<sup>3</sup>ASTM D1329

<sup>4</sup>ASTM D746

<sup>5</sup>Din 53 516

<sup>6</sup>ASTM 1894

<sup>7</sup>ASTM D 257

<sup>8</sup>ASTM 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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