

# DuPont™ Kalrez® 6375

Technical Information — September 2010

## Product Description

DuPont™ Kalrez® 6375 perfluoroelastomer parts, designed specifically for the chemical process industry, combine new polymer technology with innovative patented curing technology. Kalrez® 6375 is designed to give outstanding performance in the widest possible range of chemical and temperatures. This product is an excellent choice for use in acids, bases, amines, steam, ethylene oxide, and many other aggressive chemicals. The curing system also allows for a continuous upper service temperature of 275°C (527°F). This high temperature stability translates to increased chemical resistance over all temperature ranges, especially if high temperature process excursions occur. This combination of chemical and thermal resistance provides advantages for chemical processors. Today, chemical processors may use several perfluoroelastomer parts, including Kalrez® 4079, 1050LF and 2035 to optimize chemical and thermal performance. Kalrez® Spectrum™ 6375 may be used in many applications to displace these products. However, if optimum chemical resistance is required, then applications must be individually reviewed for the optimum product selection.

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

Color	Black
Maximum Application Temperature <sup>2</sup> , °C (°F)	275 (527)
Maximum Application Pressure <sup>2</sup> , MPa (psi)	8.27 (1200)
Durometer, Shore A <sup>3</sup>	75
Durometer, Shore M (o-ring)	83
100% Modulus <sup>4</sup> , MPa (psi)	7.24 (1050)
Elongation at break <sup>4</sup> , %	160
Tensile at break <sup>4</sup> , MPa (psi)	15.16 (2200)
Compression set <sup>5</sup> , % (70 hours at 204°C (400°F))	
Pellet	25
Size 214 O-Ring	30
Specific Gravity, g/cc	1.99

<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>

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Tg <sup>2</sup> , °C (°F)	-3.8 (25)
TR-10 <sup>3</sup> , °C (°F)	-3 (26)
Brittle Point <sup>4</sup> , °C (°F)	
Linear Coefficient of Thermal Expansion, /°C (/°F)	2.89x10 <sup>-4</sup> (1.60x10 <sup>-4</sup> )
Abrasion Resistance <sup>5</sup> , (volume loss, cubic mm)	127.9
Coefficient of friction <sup>6</sup> (to steel)	
Static	0.928
Dynamic	0.474
Volume resistivity <sup>7</sup> , ohms/square	4.23 x 10E+16
Surface resistivity <sup>7</sup> , Ohm-cm	2.06 x E+16
Dielectric Constant <sup>8</sup> at 150°C and 1 MHz	
Dissipation Factor <sup>8</sup> at 150°C and 1MHz	

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<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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