

DuPont™ Kalrez® 8575

Technical Information — September 2010

Product Description

DuPont™ Kalrez® 8575 perfluoroelastomer parts are a white product for “select” etching, ashing/stripping and deposition process applications. It offers low weight loss in Oxygen and Fluorine-Based Plasmas, low outgassing and excellent elastic recovery properties. Kalrez® Sahara™ 8575 has excellent vacuum and long-term sealing performance, good mechanical properties and is well-suited for both static and dynamic sealing applications (e.g., gas inlets, chamber lid seals, slit valve door seals, etc.). A maximum continuous service temperature of 300°C (572°F) is suggested. Ultrapure Post-Cleaning and Packaging is standard for all parts made from Kalrez® Sahara™ 8575.

Typical Physical Properties¹

Color	White
Maximum Application Temperature ² , °C (°F)	300 (572)
Maximum Application Pressure ² , MPa (psi)	3.45 (500)
Durometer, Shore A ³	62
Durometer, Shore M (o-ring)	72
100% Modulus ⁴ , MPa (psi)	2.47 (360)
Elongation at break ⁴ , %	230
Tensile at break ⁴ , MPa (psi)	12.04 (1750)
Compression set ⁵ , % (70 hours at 204°C (400°F))	
Pellet	29
Size 214 O-Ring	17
Specific Gravity, g/cc	2.26

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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Additional Physical Properties¹

Tg ² , °C (°F)	
TR-10 ³ , °C (°F)	-3 (26)
Brittle Point ⁴ , °C (°F)	
Linear Coefficient of Thermal Expansion, /°C (/°F)	2.85x10 ⁻⁴ (1.58x10 ⁻⁴)
Abrasion Resistance ⁵ , (volume loss, cubic mm)	148.8
Coefficient of friction ⁶ (to steel)	
Static	1.04
Dynamic	0.624
Volume resistivity ⁷ , ohms/square	4.42 x 10E+16
Surface resistivity ⁷ , Ohm-cm	1.72 x 10E+16
Dielectric Constant ⁸ at 150°C and 1 MHz	2.707
Dissipation Factor ⁸ at 150°C and 1MHz	0.0007

¹Not to be used for specification

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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