



DuPont™ Kalrez® Spectrum™ 0040

For Low-Temperature Applications

Technical Information - Rev. 3, July 2019

Product Description

DuPont™ Kalrez® Spectrum™ 0040 perfluoroelastomer parts are specifically designed for low temperature environments where significant chemical resistance is required. Low temperature sealing performance (-42 °C) typically unattainable for perfluoroelastomers parts is achievable with Kalrez® Spectrum™ 0040. Kalrez® Spectrum™ 0040 is an excellent choice in applications such as couplings for the chemical transportation industry or for other applications where chemical resistance and elasticity are required in some of the coldest environments. The volume swell for Kalrez® Spectrum™ 0040 is approximately 10% when exposed to nitric acid at 110 °C for 168 hours. Compression set resistance is similar to that of our broad chemically-resistant product, Kalrez® Spectrum™ 6375.

Typical Physical Properties ¹

Color	Black
Hardness ² , Shore A	70
100% Modulus ³ , MPa (psi)	5.17 (750)
Tensile Strength at Break ³ , MPa (psi)	8.96 (1300)
Elongation at Break ³ , %	170
Compression Set ⁴ , 70 hr at 204 °C (400 °F), %	42
Compression Set ⁵ , 70 hr at 204 °C (400 °F), %	53
Maximum Service Temperature ⁶ , °C (°F)	220 (428)
Lowest Service Temperature ⁶ , °C (°F)	-42 (-43.6)
Tg °C (°F) ⁶	-27 (-16.6)
Tr10 °C (°F) ⁷	-17(1.4)

¹ Not to be used for specification purposes

² ASTM D2240 (Plied slab test specimens)

³ ASTM D412 (Dumbbell test specimens)

⁴ ASTM D395B (Pellet test specimens)

⁵ ASTM D395B & D1414 (AS568 K214 O-ring test specimens)

⁶ DuPont proprietary method; performance will vary with seal design and application specifics

⁷ ASTM D1329 (Slab test specimens)

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