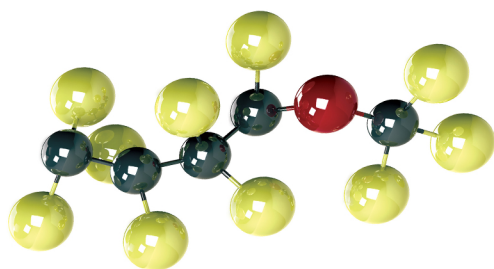


## Technical Information



# Kalrez® *K* For Low-Temperature Applications

Kalrez® *K* Perfluoroelastomer Parts are specifically designed for low temperature environments where significant chemical resistance is required. Its ground-breaking polymer and cure technology takes low temperatures sealing performance (-42°C) to an area once thought unattainable for perfluoroelastomers parts. Kalrez® *K* is an excellent choice in applications such as couplings for the chemical transportation industry, where elasticity is required in some of the coldest environments. With regards to chemical resistance, Kalrez® *K* will seal against a wide array of chemicals over all temperature ranges. As an example of its chemical performance, the table below shows that volume swell is about 10% when exposed to Nitric Acid at 110°C for 168 hours.

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

Color	Black
Hardness, Durometer Shore A <sup>2</sup>	70
100% Modulus <sup>3</sup> , MPa (psi)	6.6 (959)
Tensile Strength at Break <sup>3</sup> , MPa (psi)	13.7 (1885)
Elongation at Break <sup>3</sup> , %	180
Compression Set <sup>4</sup> , %	
70 hrs. at 200°C (392°F)	41
336 hrs. at 200°C (392°F)	57
672 hrs. at 200°C (392°F)	62
Upper Service Temperature, °C (°F) <sup>5</sup>	220 (428)
Lower Service Temperature, °C (°F) <sup>5</sup>	-42 (-43.6)
Tg °C (°F) <sup>5</sup>	-27 (-16.6)
Tr10 °C (°F) <sup>x</sup>	-x(-xx)

### Volume Swell (% Change)<sup>6</sup>, 168 hours

Nitric Acid, 110°C (230°F)	10
Ethylenediamine, 194°F (90°C)	19

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

<sup>2</sup>ASTM D2240 (pellet test specimens)

<sup>3</sup>ASTM D412 500mm/min (dumbbell test specimens)

<sup>4</sup>ASTM D395B (AS568 K214 O-ring test specimens)

<sup>5</sup>DuPont Performance Elastomers proprietary test method

<sup>6</sup>AS568 K214 O-ring test specimens