



# DuPont™ Kalrez® Spectrum™ 6380

For Strong Amine Applications

Technical Information - Rev. 4, July 2019

## Product Description

DuPont™ Kalrez® Spectrum™ 6380 perfluoroelastomers parts are a non-black product specifically developed for chemical processes involving hot, aggressive amines. In addition, it has excellent overall chemical resistance (see chart below). This cream colored product is easily identifiable when selecting an O-ring material for harsh chemical plant services. This material has excellent mechanical properties and is a top choice for both static and dynamic sealing applications. A maximum service temperature of 225 °C is suggested while short-term excursions to higher temperatures are permissible.

For more information on Kalrez® Spectrum™ 6380, or to see if it might be right for your difficult sealing applications in amines and other aggressive chemical streams, please contact DuPont.

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

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Color	Cream
Hardness <sup>2</sup> , Shore A	80
100% Modulus <sup>3</sup> , MPa (psi)	6.89 (1000)
Tensile Strength at Break <sup>3</sup> , MPa (psi)	15.86 (2300)
Elongation at Break <sup>3</sup> , %	160
Compression Set <sup>4</sup> , 70 hr at 204 °C (400 °F), %	42
Compression Set <sup>5</sup> , 70 hr at 204 °C (400 °F), %	44
Maximum Service Temperature <sup>6</sup> , °C (°F)	225 (437)
Lowest Service Temperature <sup>6</sup> , °C (°F)	-22 (-7.6)

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

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

<sup>3</sup> ASTM D412 (Dumbbell test specimens)

<sup>4</sup> ASTM D395B (Pellet test specimens)

<sup>5</sup> ASTM D395B & D1414 (AS568 K214 O-ring test specimens)

<sup>6</sup> DuPont proprietary method; performance will vary with seal design and application specifics



## Chemical Resistance (672 hour exposure)

Material Compound		DuPont™ Kalrez® Spectrum™ 6380
<i>Chemical Resistance to:</i>	<i>Temperature, °C</i>	<i>Rating</i>
Acetic Acid	100	A
Nitric Acid (fuming)	60	A
Diethyl Amine	50	A
Monoethanolamine	150	B
Ethylene Diamine	90	A
Butyraldehyde	70	A
Methanol	100	A
Toluene	100	A
Water	225	A

**Rating:** **A:** < 10% volume change and minimal effect on elastomer properties  
**B:** 10–20% volume increase and slight effect on elastomer properties  
**C:** > 20% volume increase and significant effect on elastomer properties

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