

# DuPont™ Kalrez® Spectrum™ 7375

For Oxidizing and Reactive Chemical Environment

Preliminary Product Datasheet - July 2019

## Product Description

DuPont™ Kalrez® Spectrum™ 7375 perfluoroelastomer parts are an innovative FFKM product based on a patented crosslinking system for chemical process industry applications where broad chemical and water/steam resistance are needed at elevated temperatures. Kalrez® Spectrum™ 7375 parts exhibit excellent compression set resistance, outstanding physical property retention, and good mechanical strength properties. A maximum application temperature of 300 °C is suggested.

**TABLE 1: Typical Physical Properties<sup>1</sup>**

Color	Black
Hardness, Shore A <sup>2</sup>	79
100% Modulus <sup>3</sup> , MPa (psi)	10.2 (1473)
Tensile Strength at Break <sup>3</sup> , MPa (psi)	16.9 (2447)
Elongation at Break <sup>3</sup> , %	128
Compression Set <sup>4</sup> , %, 70 hrs. at 204 °C (400 °F)	9
Compression Set <sup>4</sup> , %, 70 hrs. at 260 °C (500 °F)	15
Maximum Application Temperature <sup>5</sup> , °C (°F)	300 (572)

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

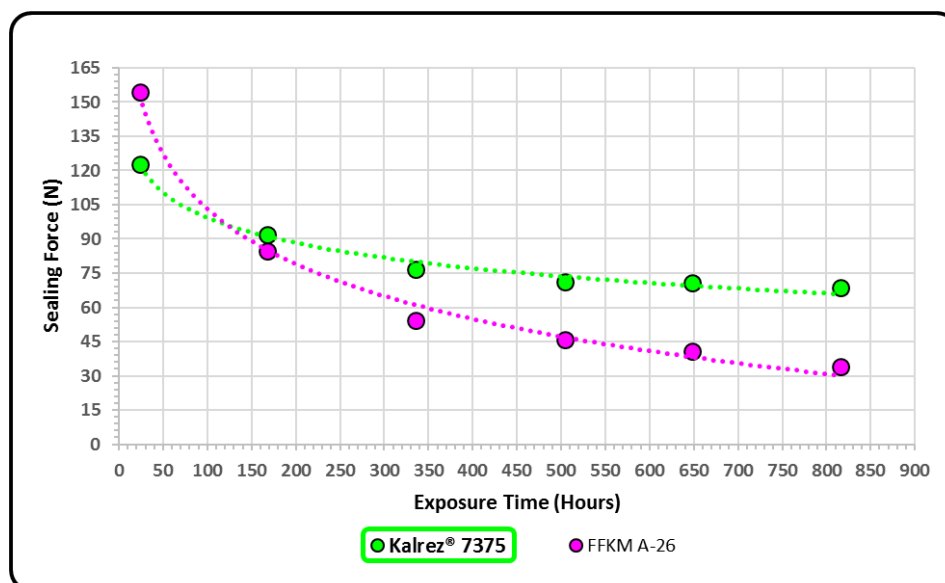
<sup>2</sup> ASTM D2240 (plied slab test specimens)

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

<sup>4</sup> ASTM D395B & D1414 (AS568 K214 O-ring test specimens)

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

## Compression Stress Relaxation (CSR) in Water<sup>6</sup> at 225 °C (437 °F), measured at 90 °C (194 °F)



<sup>6</sup> O-rings tested by compression stress relaxation per SAE J2979 at 20% compression; Tuckner, Paul, Grace Technology and Development

**TABLE 2:** Volume Change (%)<sup>7</sup> comparison between different FFKMs after chemical immersion for 672 Hours. Volume swell is a good predictor of performance and low values typically translate to compatibility in the chemical environment.

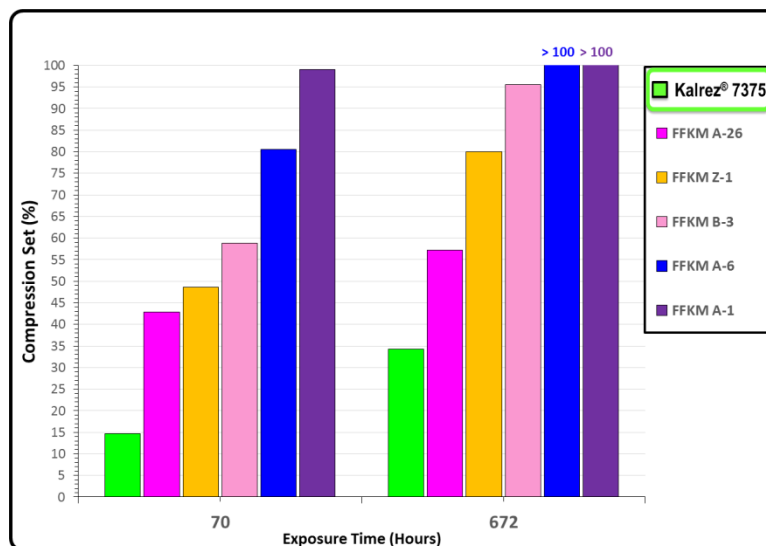
Chemical	Temp. °C (°F)	Kalrez <sup>®</sup> Spectrum™73 75	FFKM Z-1	FFKM A-1	FFKM A-26	FFKM B-3
Steam	225(437)	A	C	N/A	A	C
Nitric Acid 70%	85(185)	A	C	C	B	C
Sulfuric Acid 98%	150(302)	A	A	C	A	A
Butyraldehyde	70(158)	A	C	B	B	N/A
Maleic Anhydride	100(212)	A	B	N/A	A	A
Ammonium Hydroxide	100(212)	B	B	A	A	A

Rating system: A: 0–10% volume swell, B: 11–20% volume swell, C: >20% volume swell

N/A = Test Data Not Available.

<sup>7</sup> ASTM D471 (AS568 K214 O-ring test specimens)

### Long-Term Compression Set in Hot Air<sup>4,8</sup> at 260 °C (500 °F)



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