

DuPont™ Kalrez® CP222

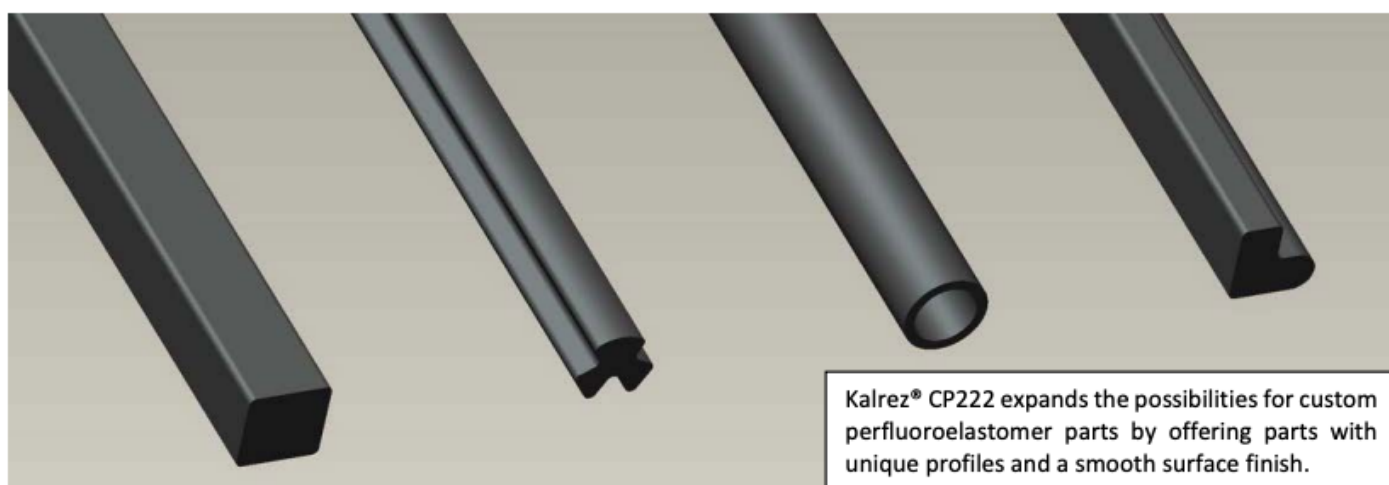
For Custom Shapes & High Volume Applications

Technical Information - Rev. 1, July 2019

Product Description

DuPont™ Kalrez® CP222 perfluoroelastomer parts are the latest product for unique custom shapes or high volume applications. Kalrez® CP222 parts offer outstanding chemical resistance and mechanical properties and continue the DuPont tradition of providing high value in use perfluoroelastomer parts to extend mean time between repair (MTBR).

In addition to high volume O-ring applications, Kalrez® CP222 can be manufactured in various custom geometries that were once beyond the reach of perfluoroelastomers. Now Kalrez® parts can be designed to fit in complex new equipment or can be a performance upgrade in existing applications.



Kalrez® CP222 expands the possibilities for custom perfluoroelastomer parts by offering parts with unique profiles and a smooth surface finish.

Chemical Resistance

For many applications, low volume swell of elastomers is critical to proper operation of equipment. Excessive swell may cause premature equipment downtime due to seal failure and leakage of the lubricating fluids. Volume swell is an excellent predictor of performance; however, other physical property testing is needed to further define product performance.

The following chemicals represent some of the most aggressive applications in the industry. These test results are an indication of performance; however, all applications are unique, and it is strongly recommended that immersion testing be performed in the actual process fluids.

Volume Swell ¹ (% Change) after 672 Hours	Temperature °C (°F)	Kalrez® CP222
Steam	225 (437)	A
Sulfuric Acid (96-98%)	150 (302)	A
Ethylenediamine	90 (194)	Not recommended
Toluene	100 (212)	A

¹AS568 K214 O-ring test specimens

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

In addition to unique shapes, Kalrez® CP222 can be manufactured into calendered or reinforced sheet for various applications.



Typical Physical Properties¹

Kalrez® CP222

Color	Black
Hardness ² , Shore A	77
100% Modulus ³ , MPa (psi)	8.91 (1292)
Tensile Strength at Break ³ , MPa (psi)	20.93 (3036)
Elongation at Break ³ , %	177
Compression Set ⁴ , %, 70 hrs. at 204 °C (400 °F)	21
Maximum Service Temperature ⁵ , °C (°F)	225 (437)
Lowest Service Temperature ⁵ , °C (°F)	-12 (10)

¹ Not to be used for specification purposes

² ASTM D2240 (Plied slab test specimens)

³ ASTM D412 (Dumbbell test specimens)

⁴ ASTM D395B & D1414 (AS568 K214 O-ring test specimens)

⁵ DuPont proprietary method; performance will vary with seal design and application specifics

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(06/12) Reference number KZE-A11031-00-C0719

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