

DuPont™ Kalrez® Perfluoroelastomer Parts

in Life Sciences

DuPont™ Kalrez® Perfluoroelastomer (FFKM) parts provide best-in-class chemical resistance, outstanding thermal and steam resistance and low contamination from extractables for demanding applications in pharmaceutical, life sciences and food handling where FDA compliance is required.

Kalrez® parts deliver longer seal life versus lower performing elastomers thereby improving productivity, efficiency and cleanliness. They also help to create a safer environment for medical packaging, disposable device handling and in the day to day running of pharmaceutical manufacturing facilities.

Product Selector*

The following guide provides a selection of suitable Kalrez® products for the Life Sciences Industry.

	Kalrez® 6230	Kalrez® 6221
Available geometries	O-rings & Specialty Shapes	O-rings
Color	Black	White
Applications		
Rotating equipment (mixers, pumps, centrifuges, etc.)	●	●
Filtration and Drying	●	●
Flow regulation (valves)		
WFI (water for injection)	●	●
Medical packaging		
Standards compliance and certifications		
US FDA / FCN#	● / 101	● / 101
USP <87> & <88> Class VI @ 121 °C	●	●
3-A *	●	●
Japan Pharmacopeia edition 17 section 7.03 **		●
EC 1935/2004	Please Contact DuPont for Additional Information	

* 3-A compliant parts may be available on request.

** Kalrez® LS205 and 6221 have been tested in accordance with Japan Pharmacopeia edition 17 requirements for section 7.03 "Test for Rubber Closure for Aqueous Infusion"

Typical Physical Properties¹

	Kalrez [®] 6230	Kalrez [®] 6221
Maximum Service Temperature ² , °C (°F)	260 (500)	260 (500)
Hardness ³ , Shore A	75	70
100% Modulus ⁴ , MPa (psi)	9.6 (1390)	7.2 (1050)
Tensile Strength @ Break ⁴ , MPa (psi)	16.5 (2390)	15.2 (2200)
Elongation @ Break ⁴ , %	170	150
Compression Set ⁵ , Pellet, 70 hrs. @ 204 °C, %	25	27

¹ Not to be used for specification purposes
² DuPont proprietary test method

³ ASTM D2240 (pellet test specimens)
⁴ ASTM D412 (dumbbell test specimens)

⁵ ASTM D395B (pellet test specimens unless otherwise noted)

Product Description

Kalrez[®] 6230

DuPont™ Kalrez[®] 6230 perfluoroelastomer parts are compliant with the United States’ Food and Drug Administration’s regulations for repeated use in contact with food as described by Food Contact Notification 101. Kalrez[®] parts made from compound 6230 shall meet the total extractive limitations described in 21CFR177.2600(e)(f). It has been tested in accordance with the United States Pharmacopoeia Class VI (USP Class VI) testing protocol and meets the test requirements of a USP Class VI polymer. This is a black product that offers excellent steam cycling resistance and reduces extractables from sealing materials to trace levels.

Kalrez[®] 6221

DuPont™ Kalrez[®] 6221 perfluoroelastomer parts are compliant with the United States’ Food and Drug Administration’s regulations for repeated use in contact with food as described by and Food Contact Notification 101. Kalrez[®] parts made from compound 6221 shall meet the total extractive limitations described in 21CFR177.2600(e)(f). It has been tested in accordance with the United States Pharmacopoeia Class VI (USP Class VI) testing protocol and meets the test requirements of a USP Class VI polymer. This is a white product that offers excellent steam cycling resistance and reduces extractables from sealing materials to trace levels. It is only available in O-ring form; custom geometries are not available.



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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, discuss with your DuPont customer service representative and read Medical Caution Statement H-50103-3.

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