



Kalrez® perfluoroelastomer parts

From DuPont Performance Elastomers

Compound 4079 (colour: black)

General Description

Kalrez® 4079 is a carbon black filled compound having excellent chemical resistance and mechanical properties. It has a maximum operating temperature of 315°C, although short excursions to higher temperatures are possible. It exhibits low swell in organic and inorganic acids and aldehydes and has good response to temperature cycling effects. Kalrez® 4079 has outstanding hot air ageing properties and exhibits very low and stable compression set at high temperatures. Its relatively low modulus can be a great help in assembly. This is a general purpose material suitable for around 95% of all applications in all industries. Some of its uses are O-rings, diaphragms, seals, gaskets and other custom parts.

Compound 4079 is not recommended for applications involving water/steam and aliphatic amines at higher temperature. It should never be used in applications involving ethylene oxide or propylene oxide.

The physical properties of compound 4079 are as follows:

Typical Physical Properties¹

Hardness ² , Shore A ±5	75
100% Modulus ³ , MPa (psi)	7,2 (1050)
Tensile Strength at Break ³ , MPa (psi)	16,9 (2450)
Elongation at Break ³ , %	150
Compression Set ⁴ , 70 hr at 204°C, %	25

¹ Not to be used for specifications

² ASTM D2240

³ ASTM D412, 500 mm/min (20 in/min)

⁴ ASTM D395 B, pellets

Chemical Resistance

Material Compound	Kalrez® 4079
<i>Chemical Resistance to:</i>	
Aromatic/Aliphatic oils	+++*
Acids	+++*
Alkalis	+++*
Alcohols	+++*
Aldehydes	++
Amines	+
Ethers	+++*
Esters	+++*
Ketones	+++*
Steam/Hot water	0
Strong Oxidizers	0
Ethylene/Propylene Oxide	--