Perfluoroelastomer

Kalrez® is the most common brand name.
Perfluoroelastomers are terpolymers of monomers in which all hydrogen atoms have been replaced by fluorine. These compounds combine the resilience and sealing force of an elastomer with the chemical inertness and thermal stability of PTFE.
Characterised by its exceptional chemical resistance and thermal stability for temperatures ranging from -25°C to in excess of 320°C. Application areas where the compound is often used: Chemical processing, Pharmaceutical and food industries, Oil and gas, Hydrocarbon processing, Semiconductor fabrication, Lacquer, print and coatings, Aerospace and Power generation.

May be used for	**Should not be used for**
Concentrated organic and inorganic acids Strong alkalis and bases, Alcohols, aldehydes Ketones, esters, ethers Halogens and strong oxidising media Hydraulic and fuel oils, fuels (e.g. Skydrol®) Most organic solvents, Hot water / steam CIP / SIP cleaning media Aliphatic and aromatic amines Ethylene oxide and propylene oxide	Molten Potassium Molten Phosphorus Molten Sodium

General purpose Perfluoroelastomer (FFKM) O-rings are commonly stocked, however the sizes are somewhat limited and are usually inch based O-ring sizes (BS1806/AS568A). FFKM is a most expensive material and usually is only used for applications where there is no other solution possible.

(Kalrez® is a DuPont Performance Elastomers registered name)