A Primer on Perfluoroelastomer (FFKM)

Process Technologies Inc
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Perfluoroelastomer (FFKM) is a unique elastomeric polymer that plays an important role in producing sealing elements that can perform in very aggressive chemical and high temperature environments. They are the most chemically resistant elastomers available on the market and are frequently referred to as "Rubber Teflon®."

Perfluoroelastomers (FFKM) are the elastomeric form of poly(tetrafluoro ethylene) or PTFE Perfluoroelastomers have a fully fluorinated backbone. They are copolymers of tetrafluoroethylene and a perfluorinated ether such as perfluoromethylvinylether (PMVE).

The manufacturers of perfluoroelastomer polymers include, DuPont, Daikin, Solvay and Dyneon.

A number of manufacturers offer o-rings and sealing elements in a great variety of compounds based on perfluoroelastomer polymers. These compounds vary greatly in their abilities to perform at high temperatures, (some grades are suitable for continuous use at 372 °C (620°F) very low temperatures and even steam. They also have a much higher coefficient of thermal expansion than other elastomers such as Buna and FKM.

Perfluoroelastomer (FFKM) o-rings and other sealing elements are expensive when compared to other sealing materials. However, their cost is frequently justified by the long service life they can provide in very aggressive sealing applications.

The High Performance Seal Division of PTI, Inc. offers over 20 different Kyflon perfluoroelastomer compounds in the form of molded and vulcanized o-rings, cord, tubing and custom parts. Kyflon compounds are used in a wide range of industries to seal against solvents, amines, chemicals, high temperatures and steam.

Contact us today to speak with us about the optimum Kyflon products for your applications.
Tel: 610-603-7546 *07/2019*

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty for this product.

Prior to actual use it is highly recommended that suitable tests be run to determine this product's suitability in a specific application. This is critical where failure could result in injury or damage.

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