CRITICAL APPLICATION HIGH PERFORMANCE O-RINGS



Perfluoroelastomers

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When there is no room for error **Polymax FFKM** is the answer

COMPANY PROFILE

Polymax Ltd is part of an international group that has been at the forefront of manufacturing and distributing rubber products since 1970. We are focused on providing an excellent buying experience for our customers through our high-quality service and vast product portfolio. We are one of the largest distributors of standard rubber products in the UK with more than 40,000 products in stock and ready for next day dispatch.

Leaders in Rubber Technology

We have a wealth of expertise from which to draw upon in order to help our customers choose the right product. We can advise not only on compound selection but also composition. We have our own dedicated plants in Europe and Asia to produce products to specific customer requirements. Our capability is not only limited to production; we also offer physical, chemical and mechanical testing of products to various ISO and ASTM specifications.

Global Knowledge, Local Insight

Polymax employs multilingual staff who work confidently and efficiently with leading suppliers and customers across the globe. Our head office is based in the UK and we have additional representation in the Netherlands, Poland, Sweden and India.



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Polymax **FFKM** Perfluoroelastomer

Covering all the bases

Polymax FFKM delivers outstanding performance in extreme conditions where conventional materials fail. The range is comprehensive, incorporating compounds suitable for use in a wide range of demanding applications. They are resistant to an almost universal spectrum of chemicals, making Polymax the brand of choice for industry giants within the petrochemical, power generation, food processing and pharmaceutical sectors. Whether the application requires a seal high temperature resistance (up to +330°C); low temperature resistance (down to -40°C); pharmaceutical approval to aggressive chemicals or superheated steam, there is a grade of Polymax FFKM to suit.

How is Polymax FFKM unique?

Polymax FFKM combines the thermo-chemical resistance of PTFE with the physical properties of FKM to give the best possible temperature and chemical resistance of any elastomeric material. This is achieved by introducing perfluoroalkoxy or alkyl vinyl ethers to the PTFE monomer and in turn causing the main chemical chain to become fully fluorinated. The way in which these chains cross link together constitutes the temperature and chemical resistance of the seal.

Knowledge is power

We are committed to finding the best solution for your application. Through years of experience, we are equipped to deal with enquiries for FFKM products confidently and efficiently - helping you to find the right material for the job.

BUILT TO LAST

Oil, Gas and Petrochemical

Our AED (anti-explosive decompression) grades are not only capable of withstanding chemical media such as sour gas and crude oil but can also operate at elevated temperatures and pressures. They possess very low out-gassing properties which is ideal for use in the most severe underground environments. We have several grades available with NORSOK and NACE approval for use in offshore applications.

Chemical Processing

With almost universal chemical resistance Polymax FFKM seals are a natural choice for use in the chemical process industry. Moreover, we can supply specific grades for use with water and steam as well as grades that exhibit extremely low temperature resistance.

Food and Pharmaceutical

A number of Polymax FFKM grades carry approvals outlined by leading governing bodies in the pharmaceutical and food processing sectors. We can offer materials with 3A-Sanitary Standard for sterilization equipment, FDA for food/drink applications and USP Class VI for pharmaceutical applications.

Road, Rail and Aerospace Transportation

The range is particularly suited for the severe working demand in high performance automotive, rail and aerospace applications. Polymax FFKM is recommended for service within turbine engines, fuel delivery systems, hydraulic actuation, braking and landing gear commonly found in the transportation industry.











Polymax **FFKM** Compatibility Chart

Please note that alternative grades are displayed for reference purposes only. For specific technical advice for your application, please contact Polymax Ltd. See page 7 for further information about the highlights from the range.

Polymax FFKM Compound	Service Temperature	ShA Hardness	Kalrez®	Chemraz®	Perlast®	Perflour®	Simriz®	lsolast®
P260B7	+260°C to -15°C	75	6375	504 550 605	G70A G75M	FF102-75	481 485 495	J9503
P260W8	+260°C to -15°C	80	6380 2037	513 514 517 584 585	G76W			J9501 J9505
P300B8ST	+300°C to -15°C	80	1050LF	555 605		V8545-75	487	J9512
P300W7	+300°C to -15°C	75			G70H	FF354-65 FF352-75 V8652-75	488 508	J9675
P316B8	+316°C to -15°C	80	4079					
P330B8	+330°C to -15°C	80	7075	615	G75B G75TX		Z7257 498	J8325
P260W8FDA	+260°C to -15°C	80	6221	517	G60S G74S G75S G80S	FF350-75		J9516
P260B8FDA	+260°C to -15°C	80	6230	625		FF200-75 FF500-75	484	J9515
P230W7USP	+230°C to -10°C	75	6230 6221	625 517 585	G74S	FF350-75		J9515 J9516
P300W7USP	+300°C to -15°C	70	8575					
P027B7LT	+240°C to -27°C	75		505				
P045B7LT	+240°C to -45°C	75	0040					
P260B9AED	+260°C to -15°C	90	3018 2085	510 600	G90A			J9509
P230B9AEDN	+230°C to -15°C	90	0090	526	G92E		134	J9510 J9513
P300B9AED	+300°C to -15°C	90				FF202-90 V8588-90		
P316B9AED	+316°C to -15°C	90	7090			V8588-90		

Kalrez® is a registered trademark of DuPont Performance Elastomers. Chemraz® is a registered trademark of Greene Tweed.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however, we do not assume anyliability whatsoever for the accuracy and completeness of the above information. Polymax Ltd. makes no warranties which extend beyond the description contained herein. Any information given in this statement does not constitute any warranty of merchantability or fitness for a particular use. It is the customers' responsibility to inspect and to test our products in order to satisfy themselves as to the suitability of the products to their particular purpose.







Alkalis







temperatures).



Polymax FFKM Highlights

P300B8ST - Developed for high temperature water and steam applications.

P316B8 - Developed for optimum resistance to thermal cycling (change of temperatures). Not suitable for steam or hot water applications.

P316B9AED - The same as P316B material but with rapid gas decompression resistance (RGD) for oil and gas applications. Also known as anti-explosive decompression (AED). Not suitable for steam or hot water applications.

P330B8 - Developed for performance at constant elevated temperatures. Not suitable for high temperature water and steam applications.

P260W8FDA - Produced in accordance with FDA 21 CFR 177.2600 classification.

P260B8FDA - Produced in accordance with FDA 21 CFR 177.2600 classification.

P230B9AEDN - Meets the requirements of NORSOK standard M-710 (Rev. 2, Oct. 2001). This compound is designed to give the best performance for rapid gas decompression. Developed for optimum resistance to thermal cycling (change of

P230W7USP - Specifically developed for use with a wide range of pharmaceutical ingredients (API's) and aggressive cleaning methods. Passed the United States Pharmacopeia (USP) Biological Reactivity test.

P300W7USP - Specifically developed for use with a wide range of pharmaceutical ingredients (API's) and aggressive cleaning methods. Passed the United States Pharmacopeia (USP) Biological Reactivity test.

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