AFLAS® FFKMs

Elastomers for Exceptional Performance in the Most Challenging Conditions

AGC Chemicals is a leading fluoropolymer manufacturer and the world's no. 1 in ETFE production. The European subsidiary, AGC Chemicals Europe, produces Fluon® PTFE and ETFE and markets other fluorinated products, including Fluon® PFA and AFLAS® Fluoroelastomers. The product range offers excellent resistance against heat, chemicals and corrosion, and has a broad base of applications in industrial, automotive, aerospace, oil and gas, and other markets where long-lasting high performance is necessary.

AFLAS® FFKMs - Elastomers for Exceptional Performance in the Most Challenging Conditions

AGC's AFLAS® FFKM grades are perfluorinated elastomers capable of withstanding very high service temperatures. Being fully fluorinated, FFKMs exhibit the ultimate in sealing performance in all manner of aggressive chemical environments. AGC Chemicals embraces future challenges and continuously develops materials for ever-evolving applications and markets.

With their outstanding chemical performance and high temperature capabilities, AFLAS® FFKMs are perfectly suited for use in o-rings and seals in the harshest conditions.

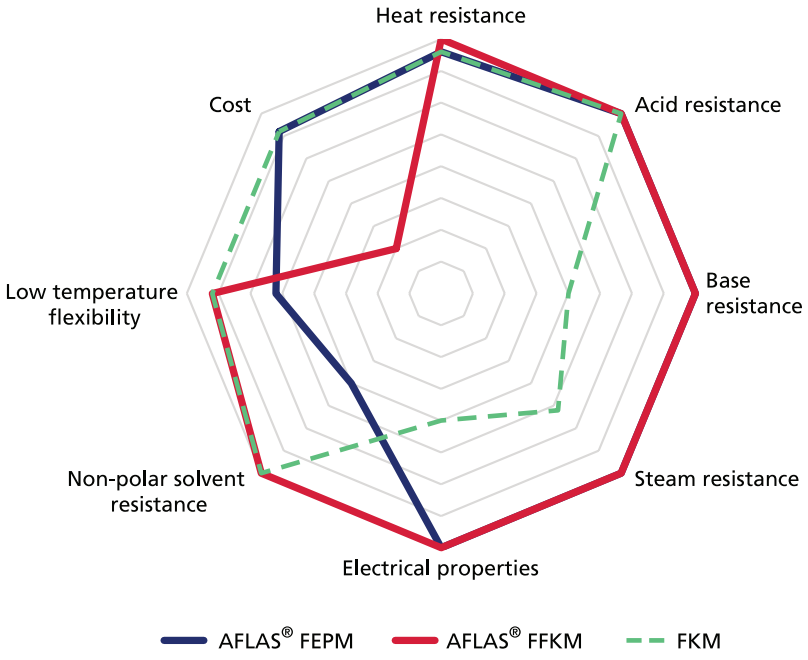
Advantages

- Chemical resistance
- Oil resistance
- Heat resistance
- High tensile strength
- High continuous operating temperature

Applications

- Sealing parts for CPI
- Sealing parts for analytical instruments
- Instruments for semiconductor manufacturing
- Sealing parts for Oil & Gas

Comparison of Fluoroelastomer Performance



AFLAS® FFKM Grade Range

AGC has developed a range of different AFLAS® FFKM products for various applications depending on the service conditions or other specific needs.

PM-1100: the introduction to FFKM

When FEPM and FKM-type elastomers don't meet your requirements, this is the next level in terms of chemical performance. It is capable of operating at 230°C continuously and occasional peaks of 250°C. Our most affordable grade for general applications.

PM-3000: the capable all-rounder

The next level up from PM-1100. This grade has a continuous service temperature of 250°C with peak temperatures around 270°C. With improved compression set, PM-3000 will sustain pressure for longer periods meaning reduced maintenance needs.

PM-3500: the pure one for demanding applications

Specifically developed for applications where high-purity is vital to the customers' processes, PM-3500 achieves a Shore A hardness of 70 without the need for fillers that could lead to particulate generation. It is plasma resistant and therefore ideal for use in the etching process in semiconductor manufacture.

PM-5000: the ap-peel-ing one

Utilising a nitrile cure system, PM-5000 will run at 300°C continuously. It has been developed with improved cold compression set and low sticking force.

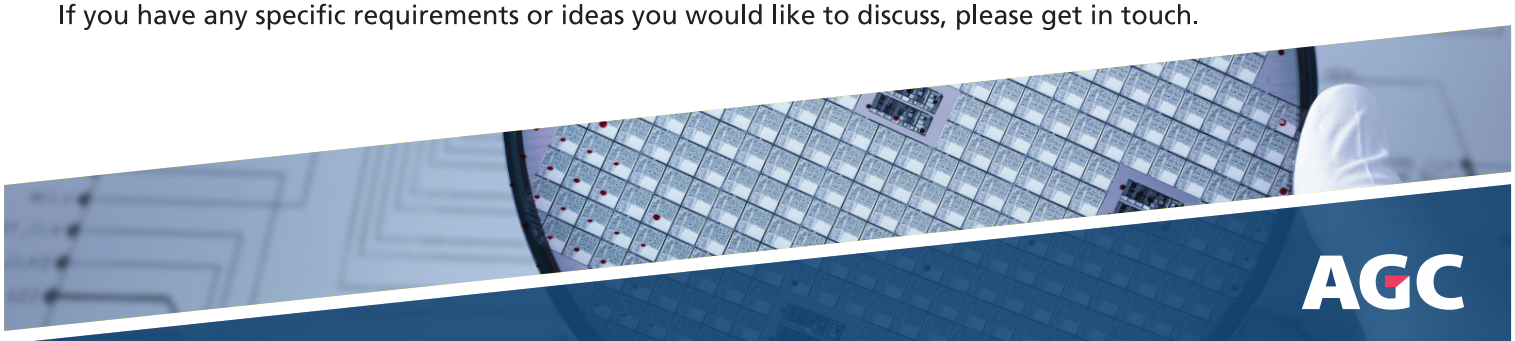
PM-5500: the high temperature one

Also utilising a nitrile cure system, PM-5500 is capable of continuous operation at 300°C. Shore A hardness of 68 can be achieved without fillers, making it ideal where plasma resistance is required at very high temperatures.

Grade	Service Temp. (°C)	Compress. Set* (%)	Storage Modulus (kPa)	Peroxide	Nitrile	Chemical Ind.	Oil and Gas	Semiconductor	Plasma	Comments
PM-1100	230	18.1	480	●		●	●			Peak temperature 250°C
PM-3000	250	14.3	480	●		●	●	●		Versatile; good compression set
PM-3500	250	22	450 - 820	●				●	●	High hardness with no filler
PM-5000	300	12†	200 - 500		●			●	●	Low sticking force; improved cool CS
PM-5500	300	11†	250 - 550		●	●	●	●	●	High hardness with no filler

** Compression Set data measured on JIS-B 2401, P-26 O-ring, 25% compression, 70h, 200°C*
† Compression Set data measured on JIS B 2401, P-26 O-ring, 25% compression, 70h, 250°C

Our R&D team is constantly looking at ways to improve our offering in order to push the boundaries of possibility. If you have any specific requirements or ideas you would like to discuss, please get in touch.



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