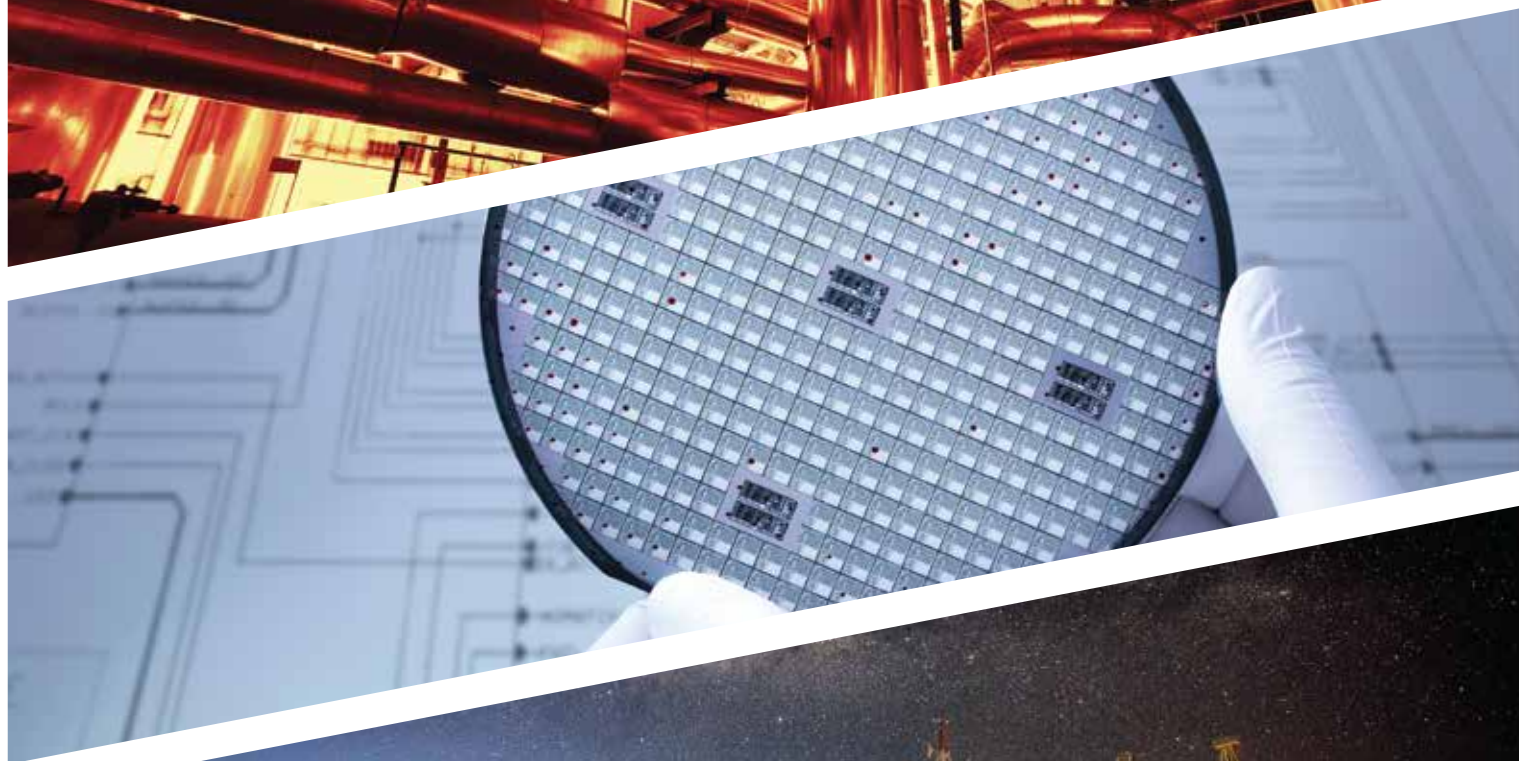




High Performance Fluoroelastomers



AGC

Your Dreams, Our Challenge

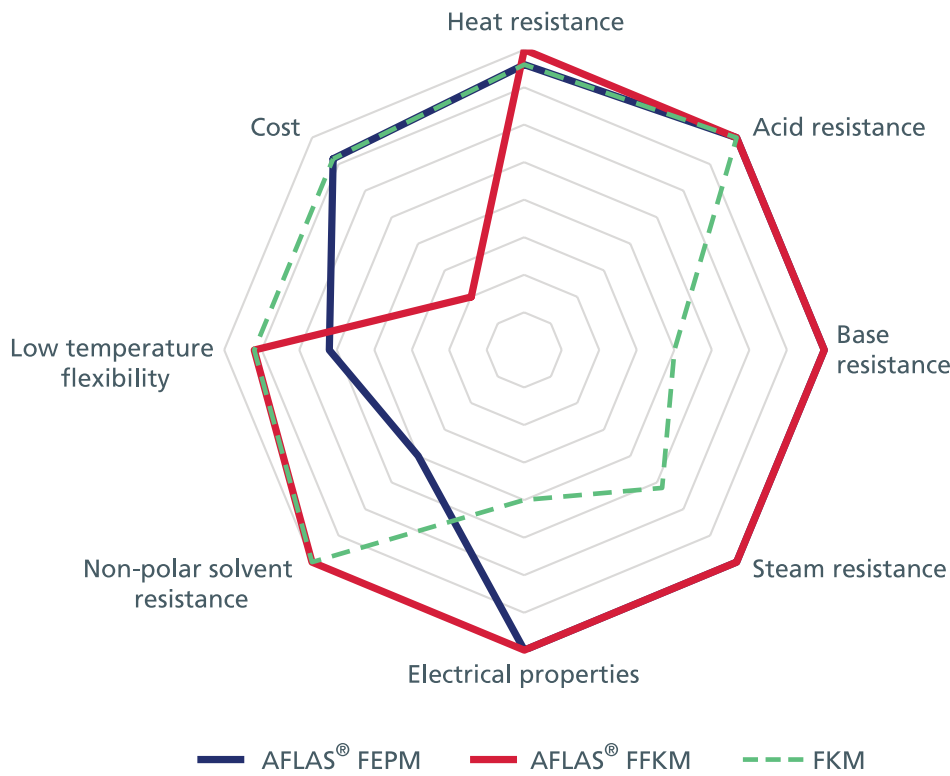
High Performance Flexibility in the Most Demanding Applications

AFLAS® FEPM fluoroelastomer was launched in 1975 by AGC and is based on an alternating copolymer of tetrafluoroethylene and propylene. The AFLAS® FFKM range was launched in 2017 to meet the ever-more challenging demands of advanced industry.

Classed as high performance elastomers, AFLAS® FEPM and FFKM grades offer a number of properties, which makes them the perfect choice for the most demanding applications.

AFLAS® FEPM has similar performance levels to binary and ternary FKM grades, but with some crucial differences that afford benefits in certain applications, for example steam, amine, sour gas or base resistant applications or those requiring excellent electrical performance.

Comparison of Fluoroelastomer Performance



Typical Applications

Industrial applications where the numerous high performance properties of AFLAS® fluoroelastomers would be beneficial include chemical plants, oil and gas exploration and extraction, nuclear power generation, electrical fields, automotive, machinery, food processing, and many others.

AFLAS® grades are often used in critical applications that require long service life where maintenance or inspection are challenging.

Benefits

- Suitable for high pressure and high temperature applications
- Continuous use at 200°C, withstanding peaks at higher temperatures
- Long service life in harsh environments
- Durable in extreme chemical environments, e.g. oil exploration
- Can be compounded to be highly resistant to rapid gas decompression (e.g. NORSOK)
- A good balance between performance and processability
- AFLAS® 400E and 600X can be coloured
- Electrical performance, flexibility and latex form make AFLAS® 150CS ideal for battery binders

AFLAS® Grade Range

AFLAS® FEPM

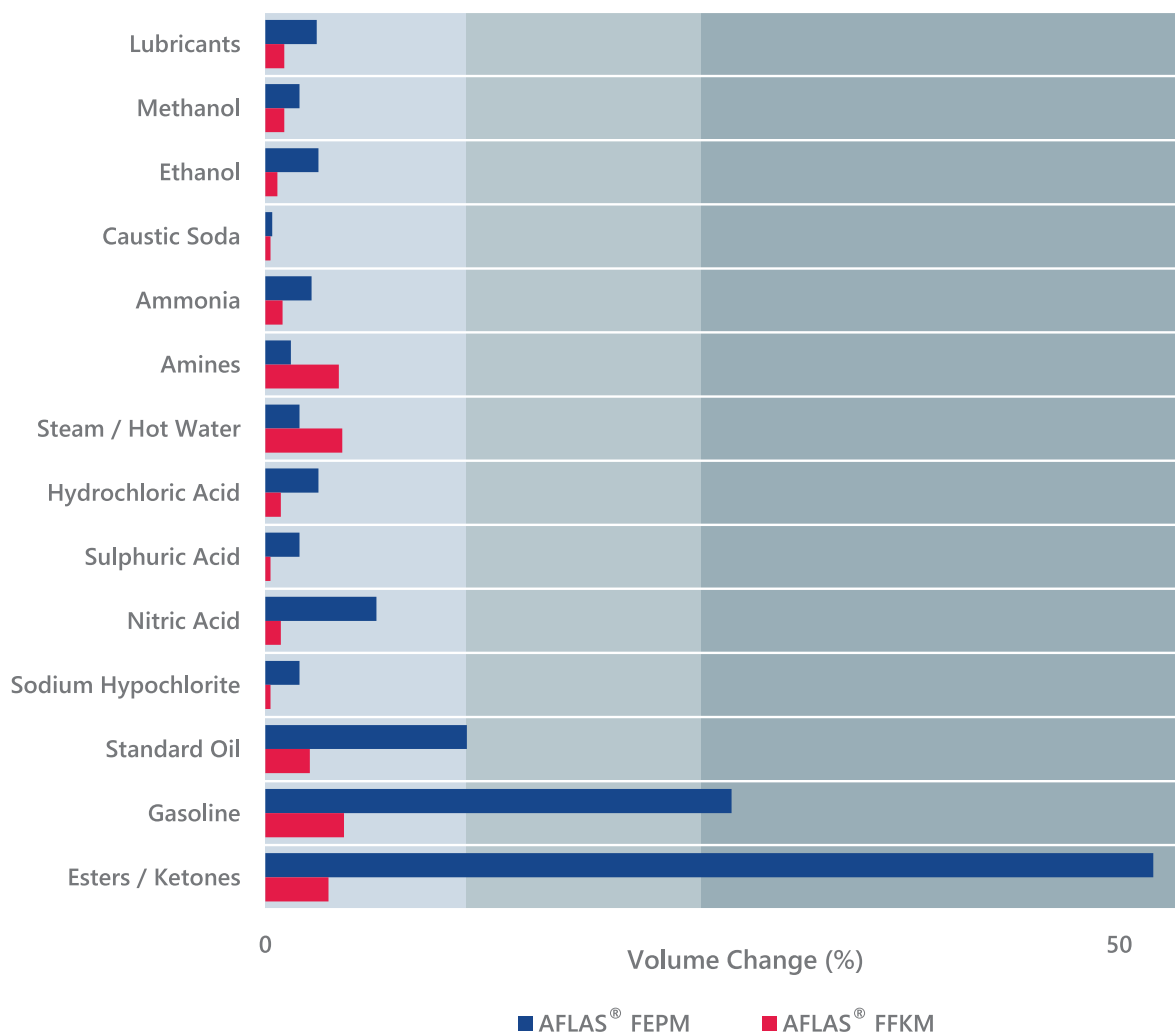
Grade	Chemical Ind.	Oil and Gas	Geothermal	Food Industry	Auto / EV	Seals and Gaskets	Wire and Cable	Hose and Tube	Coatings	Battery Binder	Comments
600X	•	•	•		•	•					Excellent compression set
400E	•				•	•	•	•			Co-extrudable
100H		•	•	•		•					Excellent RGD resistance
100S	•			•	•	•					General purpose seals
150E	•				•	•	•	•			General purpose extrusions
150P				•		•					General purpose
150CS Latex					•				•	•	Liquid application

AFLAS® FFKM

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

Chemical Resistance of AFLAS® FEPM and FFKM



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If you have an application that you think would benefit by using AFLAS® FEPM or FFKM elastomers, please contact AGC Chemicals at:

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User Information

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It is the responsibility of the purchaser to check that the specification is appropriate for any individual application. Particular care is required for special applications such as pharmaceutical, medical devices or food. It is advisable to contact the AGC Chemicals sales office for the latest position. Users of AFLAS® are advised to consult the relevant health and safety literature which is available from the AGC Chemicals sales office.

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