M SEALS **TFEP-B87-ED**

ED Resistant Tetrafluoroethylene/Propylene copolymer (TFE/P)

MATERIAL DATA SHEET (Version 6.0 – 05.2022)


High Temperature


Oil & Gas use


Chemical Resistance

Description

TFEP-B87-ED is a Tetrafluoroethylene/Propylene Copolymer, commonly referred to as TFE/P, FEPM or Aflas™*.

This material has been modified for resistance to explosive decompression (ED resistance) for use in high-pressure gas applications. Just like our softer variant it has excellent resistance to the harshest chemicals seen in the Oil & Gas industry, including acids, hot water/steam, HFA, HFB, HFC and HFD hydraulic fluids, as well as sour oils/gases (H_2S) and heavily formulated oils with amine additives.

Care should be taken when utilising this material in low temperature environments due to loss of flexibility and we do not recommend its use in aromatic fuels, chlorinated hydrocarbons, chlorine based solvents, ketones and organic refrigerants.

Physical Properties

Property	Test method	Unit	Typical Value
Colour			Black
Density	ISO 1183-1	g/cm^3	1.62
Hardness	ISO 868	Shore A	87(+/-5)
Tensile strength	DIN 53504	MPa	≥18.9
Modulus 100%	DIN 53504	MPa	≥11.5
Elongation at break	DIN 53504	%	≥207
Tear Strength	ISO 34-1	N/mm	≥3.7
Rebound resilience	DIN 53512	%	8
Minimum service temperature		°C	-10
Maximum service temperature		°C	+220
Maximum service temperature - short term		°C	+250
Maximum service temperature in Steam		°C	+170

Main Characteristics

- Explosive Decompression resistance
- Excellent chemical resistance
- Excellent high temperature resistance
- Excellent hot water / steam resistance
- Good physical properties

Typical Products

- Energised U-Seals
- T-Seals
- Static Seals & O-Rings
- Scraper / Wiper seals
- Packers / bespoke parts

*AFLAS is a reg. trademark of Asahi Glass Co. Japan.

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