

V75ZF

Fluorosurfactant-free low temperature high fluorine fluoroelastomer

FLUORO-SURFACTANT
FREE

Description

V75ZF is a high fluorine content peroxide-cured ASTM D1418 FKM type 3 for low temperature sealing applications.

V75ZF is recommended for use in static or dynamic applications where low temperature performance is required alongside with improved fluid resistance. V75ZF is recommended for fuel systems (especially alcohol fuel blends) where lower fluorine content FKMs are not suitable

It is therefore suitable for a wide range of oil and fuel sealing applications.

PPE supports enhanced responsible fluoropolymer manufacturing practices and have developed V75ZF as an alternative material to the legacy V75Z, by leveraging a new FKM manufacturing process that does not require the use of fluorinated surfactants, thus making the whole production cycle more environmentally sustainable.

Key Attributes

- ▶ Excellent resistance to fuels (alcohol/fuel blends), oils and hydraulic fluids
- ▶ Excellent resistance to hot water and steam
- ▶ Excellent low temperature capability
- ▶ Wide temperature range -35°C to 225°C (-31°F to 437°F)
- ▶ Good compression set characteristics providing excellent sealing properties

Typical Applications

- ▶ Fuel systems
- ▶ Marine diesel engines (valve seats & liner rings)
- ▶ Heat exchangers
- ▶ Oil and gas valves

Other materials in this range

V71C (FKM -51°C / -60°F)

V75T (FKM -41°C / -42°F)

Perlast® G75LT (low T FFKM -46°C / -51°F)



Typical Material Properties

Property	Test method	Value
Material Type	ASTM D1418	FKM Type 3
Colour		Black
Hardness (Shore A)	ASTM D2240	72
Tensile Strength (MPa)	ASTM D412	18.5
Elongation at break (%)	ASTM D412	180
50% Modulus (MPa)	ASTM D412	3.0
100% Modulus (MPa)	ASTM D412	7.8
Compression Set (%): 72 h @ 200°C (392°F)	ASTM D395B	17
Glass Transition: Tg	D3418	-24°C (-11°F)
Minimum Operating Temperature		-35°C (-31°F)
Maximum Operating Temperature		+225°C (+437°F)
Continuous Use Temperature	**	+210°C (+410°F)

** PPE proprietary test method

SPECIAL NOTE: This information is to the best of our knowledge accurate and reliable. However, PPE Ltd makes no warranty, expressed or implied that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use, especially in applications where their failure may result in injury and/or damage. While this material has been developed as an alternative to a legacy material, technical and commercial equivalency is neither given or implied and suitability should be considered on a case-by-case basis. It should also be noted that all elastomeric parts have a finite life, therefore a regular program of inspection and replacement is strongly recommended. In non-black grades of elastomer, it is possible to observe slight variations in colour. This is normal and is inherent in the part; it is not indicative of foreign matter. These colour variations are not expected to adversely affect the performance of the part. The material properties above should not be used for specification purposes.

