Product Data Sheet

V75SF

Fluorosurfactant free high fluorine fluoroelastomer

FLUORO-SURFACTANT FREE

Description

V75SF is a high fluorine fluoroelastomer (FKM) high performance material for use in demanding applications within the semiconductor and flat panel display industries.

The extremely high fluorine content of the material provides exceptional thermal resistance and outstanding chemical resistance to steam (up to 180°C) and acids. V75SF incorporates an inert reinforcing filler system that reduces particulation in critical sealing applications and enhances plasma performance.

V75SF provides excellent sealing performance due to its low compression set and ideal modulus, which ensures maximum long-term sealing efficiency.

PPE support enhanced responsible fluoropolymer manufacturing practices and have developed V75SF as an alternative material to the legacy V75SC, 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

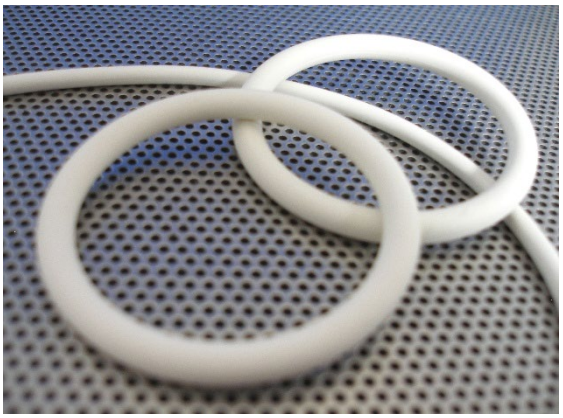
- Excellent thermal resistance
- Outstanding chemical resistance to a wide range of media
- Low compression set and high sealing efficiency
- Low outgassing
- Cost effective high performance fluoroelastomer

Typical Applications

- O-rings
- Slit valve seals
- Static and dynamic seals
- Lip seals
- Check valves
- Pumps and valves

Other materials in this range

V77W (FKM)
Perlast® G76W (FFKM)



Typical Material Properties

Property	Test method	Value
Material Type	ASTM D1418	FKM Type 2
Colour		Beige
Hardness (Shore A)	ASTM D2240	68
Tensile Strength (MPa)	ASTM D412	17
Elongation at break (%)	ASTM D412	310
50% Modulus (MPa) 100% Modulus (MPa)	ASTM D412	6.5 8.8
Compression Set (%): 72 h @ 200°C (392°F) 72 h @ 250°C (392°F)	ASTM D395B	 21 32
Glass Transition: Tg	D3418	-4°C (25°F)
Minimum Operating Temperature		-15°C (5°F)
Maximum Operating Temperature	*	+225°C (+437°F)
Continuous Use Temperature	**	+200°C (+392°F)

* and ** PPE proprietary test methods

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 effect the performance of the part.*

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