

V75RF

Fluorosurfactant free food contact fluoroelastomer

FLUORO-SURFACTANT
FREE

Description

V75RF is a black peroxide-cured FDA-compliant fluoroelastomer (FKM) material developed to withstand steam-in-place (SIP) and clean-in-place (CIP) procedures within pipe work and vessels.

V75RF provides superior steam resistance, ideal for use in Stage II Sterilization processes which require exposure to steam up to 200°C (392°F).

V75RF can be used for all types of applications requiring FDA and USP Class VI compliance.

PPE support enhanced responsible fluoropolymer manufacturing practices and have developed V75RF as an alternative material to the legacy V75SR, 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 steam resistance up to 200°C (+392°F)
- ▶ Superior resistance to a wide range of solvents & chemicals
- ▶ Superior mechanical properties
- ▶ Compliant with FDA 21 CFR § 177.2600 for use with dry, aqueous and fatty food stuffs (a to f)
- ▶ Compliant with BfR XXI/1 Category 4 recommendation
- ▶ Compliant with USP Class VI suffix <87>, suffix <88> (121°C)
- ▶ EC1935/2004 and EC2023/2006 compliant
- ▶ 3-A Standard 18-03 Class I compliant
- ▶ Free from Animal Derived Ingredients
- ▶ Free from Bisphenol A, Bisphenol AF and derivatives

Typical Applications

Recommended for hygienic sealing in pharmaceutical, bio-analytical and industrial food processing applications.

- ▶ O-rings
- ▶ Gaskets
- ▶ Hygienic/sanitary couplings & pipe connectors
- ▶ Ball segment valve seals (inflatable seals)

Other materials available

V70WF steam resistant FDA-compliant FKM grade (white)
Perlast® G74S steam resistant perfluoroelastomer FFKM (white)



Typical Material Properties

Property	Test method	Value
Material Type	ASTM D1418	FKM Type 2
Colour		Black
Hardness (Shore A)	ASTM D2240	68
Tensile Strength (MPa)	ASTM D412	25.0
Elongation at break (%)	ASTM D412	265
50% Modulus (MPa)	ASTM D412	2.1
100% Modulus (MPa)		5.6
Compression Set (%): 72 h @ 200°C (392°F)	ASTM D395B	27
Glass Transition: T _g	D3418	-5°C (+23°F)
Minimum Operating Temperature		-15°C (+5°F)
Maximum Operating Temperature		+225°C (+437°F)
Continuous Use Temperature	*	+200°C (+392°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 effect the performance of the part.



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