Product Data Sheet

V74CF

Fluorosurfactant-free ultra-low compression set fluoroelastomer

FLUORO-SURFACTANT FREE

Description

V74CF is a fluoroelastomer (FKM) material developed to offer extremely low compression set combined with excellent heat ageing properties.

V74CF has been engineered to retain its mechanical properties significantly longer than conventional FKM grades even under extreme temperature cycling, thereby providing increased service life and significantly lower the cost of ownership.

V74CF exhibits good resistance to acids and aqueous media, and excellent resistance to oil, fuels and hydraulic fluids at high temperature.

PPE support enhanced responsible fluoropolymer manufacturing practices and have developed V74CF as an alternative material to the legacy V74C, 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

- Extremely low compression set and cumulative compression set providing extended seal life
- Excellent long-term high temperature stability
- Superior heat ageing properties for long-term sealing

Typical Applications

- Vacuum pumps & compressors (high temperature applications)
- Mechanical seals
- Chemical pumps and valves
- Couplings and quick connectors

Other materials in this range

V60X (black FKM Type 1)
V91X (black FKM Type 1)
V72G (green FKM Type 1)

Typical Material Properties

Property	Test method	Value
Material Type	ASTM D1418	FKM Type 1
Colour		Black
Hardness (Shore A)	ASTM D2240	76
Tensile Strength (MPa)	ASTM D412	13.5
Elongation at break (%)	ASTM D412	190
50% Modulus (MPa) 100% Modulus (MPa)	ASTM D412	3.5 7.0
Compression Set (%): 24 h @ 200°C (392°F) 72 h @ 200°C (392°F)	ASTM D395B	 7 14
Glass Transition: Tg	D3418	-16°C (3°F)
Minimum Operating Temperature		-25°C (-13°F)
Maximum Operating Temperature	*	+240°C (+464°F)

* PPE proprietary test method

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