Product Data Sheet

V70D

General purpose copolymer fluoroelastomer

Description

V70D is a copolymer fluoroelastomer (FKM) of vinylidene fluoride and hexafluoropropylene.

This material has an operating temperature range between -20°C (-4°F) and +225°C (437°F). It offers resistance to a broad range of chemical media including air, petroleum, silicone and diester-based liquids, however it is not suitable for use in contact with certain phosphate-ester-based liquids.

V70D meets Aerospace Specifications DTD5612A and DTD5543B Grade 70.

V70D can be moulded into various shapes and custom profiles to suit specific application requirements.

Key Attributes

- Meets Aerospace Spec DTD5621A Grade 70
- Meets Aerospace Spec DTD5543B Grade 70
- Broad chemical resistance to air, petroleum and diester-based liquids
- Excellent long term sealing performance
- Superior heat aging properties for extended service life

Typical Applications

- Mechanical seals
- Chemical pumps and valve
- Diesel engines:
  - Injection systems
  - Cylinder heads
  - Exhaust valve seats up to 180°C (356°F)
- Coupling and quick connectors

Other materials in this range

V60D and V80D: Meets Aerospace DTD5612A & DTD5543B
V61C and V71C: Ultra-low temperaure FKM
V74C: Ultra low compression set
V75J: High temperature steam resistance FKM

Heat Resistance	ASTM	ISO	Value
70 hrs @ 250°C (482°F)	D573	ISO188	
Hardness change (°IRHD)	D1415	ISO48	0
Tensile strength change (%)	D412	ISO37	-5
Elongation at break change (%)	D412	ISO37	-8

Typical Material Properties

Property	ASTM	ISO	Value
Material Type	FKM	FPM	Copolymer
Colour			Black
Hardness: (°IRHD)	D1415	ISO48	70
Tensile Strength (MPa)	D412	ISO37	11
Elongation at break (%)	D412	ISO37	215
Compression Set: 24 hrs @ 200°C (392°F)	D395	ISO815	14%
Low temperature Rigidity (MPa) *Torsional Modulus at –12°C*	D1053		43
Minimum Operating Temperature			-20°C (-4°F)
Maximum Operating Temperature			+225°C (+437°F)