

M SEALS PVDF-CD77

Thermoplastic Fluoropolymer

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Low Temperature



Low Temp Elasticity



Chemical Resistance



Low Moisture Absorption

Description

M Seals PVDF-CD77 material is a thermoplastic fluoropolymer produced via the polymerisation of Vinylidene Difluoride and is known as PVDF. It has superior creep resistance to most other fluoropolymers, and is resistant to most solvents, acids and alkalis while having a low moisture uptake.

PVDF-CD77 has the capability to operate and maintain its elasticity at low temperatures down to -60°C and is commonly used for soft seat seals in the valve industry and parts where high vacuum or gamma radiation may be present.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Opaque
Density	ISO 12086	g/cm ³	1.75
Hardness	DIN 53505	Shore D	72-82
Tensile strength	DIN 53455	N/mm ²	38-50
Tensile modulus	DIN 53457	N/mm ²	800-1800
Elongation at break	DIN 53455	%	20-80
Water absorption 24 hr	DIN 53495	%	0.03
Coefficient of linear thermal expansion		1/K.10 ⁻⁵	10
Melting temperature	APPROX	°C	177
Thermal conductivity	DIN 52612	W/K.M	0.17
Minimum service temperature		°C	-60
Maximum service temperature		°C	+150
Dielectric strength	DIN 53481	KV/mm	40-80

Main Characteristics

- Good low temperature flexibility
- Good creep resistance
- Good chemical resistance
- Useful high temperature properties
- Low water absorption

Typical Products

- Bearing rings / guide rings
- Bushes
- Valve seat seals
- Anti-Extrusion / Back-Up Rings
- Bespoke parts

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