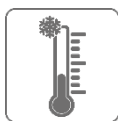


# M SEALS FEP-TD55

Fluorinated Ethylene Propylene - Fluoropolymer



MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Low Temperature



Low Temp Elasticity



Chemical Resistance



Low Moisture Absorption

## Description

M Seals material FEP-TD55 is a melt processable semi crystalline fluoropolymer which is commonly referred to as FEP. Its properties are like those of PTFE but generally considered inferior, however the material still has excellent temperature and chemical resistance properties with a better impact resistance than that of PTFE.

FEP is commonly used to produce jackets for encapsulated O-Rings / seals and for protective linings in the chemical industry and within laboratory equipment where its excellent chemical resistance and transparency are very useful.

## Physical Properties

Property	Test method	Unit	Typical value
Colour			Transparent
Density	ISO 12086	g/cm <sup>3</sup>	2.12-2.17
Shore Hardness	DIN 53505	Shore D	55-60
Elongation at break	DIN 53455	%	250-350
Tensile Strength	DIN 53455	N/mm <sup>2</sup>	20-25
Tensile Modulus	DIN 53457	N/mm <sup>2</sup>	350-700
Water Absorption	DIN 53495	%	0.03
Coefficient of friction (Dynamic on steel)			0.35
Coefficient Of Thermal Expansion	*	1/K.10 <sup>-5</sup>	12
Service temperature		°C	-250 to +205

\* (Average between +20 to +100°C)

## Main Characteristics

- Transparent
- Excellent thermal and chemical resistance
- Good dimensional stability
- Low moisture uptake
- Good Impact resistance

## Typical Products

- Encapsulated O-Rings / Seals
- Back-Up Rings
- Bushes
- Cylinder Liners
- Bespoke Parts

## Typical Applications

Due to its excellent chemical resistance, good dimensional stability and low moisture uptake, FEP-TD55 is an excellent material choice for parts that may require a chemically resistant material that is transparent, conditions typically required for laboratory equipment. FEP's excellent thermal and chemical resistance along with good impact resistance make it a perfect choice for cylinder linings and the jackets for encapsulated O-Rings / Seals.

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