

## MATERIAL DATASHEET

99-99-0584

Standard FEP encapsulated O-ring

Creator: PFR

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### Description

FEP is a thermoplastic copolymer material that is very similar to PTFE in terms of its properties. This material is used for the seamless encapsulation of O-rings. The encapsulated O-rings have an elastic core made of fluororubber FPM (Viton®), ethylene propylene rubber EPDM or silicone MVQ. The outer cover provides the seal with extremely high chemical resistance.

### Properties

- High resistance of the sheathing protects the elastic core from the contact medium
- Excellent resistance to ozone, aging and weathering
- Excellent chemical resistance

### Typical applications

- Chemical, medical & pharmaceutical, food and high vacuum applications

### Further information

Technical data			
Shell FEP			transparent
Tensile strength	ASTM D 638	MPa	25 – 30
Elongation at break	ASTM D 638	%	300 – 310
Specific density	ASTM D 297	g/cm <sup>3</sup>	2.12 – 2.17
Dielectric constant	ASTM D 150 und D 1531	F/m	2.15
Dissipation factor	ASTM D 150 und D 1531	%	7 x 10 <sup>4</sup>
Melting point	ASTM D 3418	°C	+257 – +263
Core MVQ, FPM, EPDM			red, white or black
Temperature core and shell		°C	-60 – + 205
Temperature core and shell		°C	-20 – + 140
Temperature core and shell		°C	-40 – + 130
Hardness core and shell		Shore A	85 – 95

### Conformities

- FDA compliant 21 CFR § 177.2600
- FDA compliant 21 CFR § 177.1550
- 3-A Sanitary Class II
- (EC) No. 1935/2004
- USP Class VI
- REACH (1907/2006)
- RoHS (2011/65/EU)
- ADI-free

### Reference to the author/disclaimer

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