



99-99-0037

FEP® – Tetrafluoroethylene-hexafluoropropylene Copolymer

Description

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

Property

- The high resistance of the envelope protects the elastic core material against the influence of the utilized medium. As core materials, fluorinated rubber FPM (Viton®) (black), ethylene-propylene EPDM (black) or silicone MVQ (red) are available
- Excellent ozone, aging and weather resistance
- Excellent chemical resistance
- Excellent heat resistance up to +204 °C

Technical Specifications

			[Value]
Color			translucent
Hardness	ASTM D 2240	[Shore D]	55 ±5
Specific gravity	ASTM D 792	[g/cm³]	2.15
Tensile strength	ASTM D 638	[MPa]	30
Elongation at rupture	ASTM D 638	[%]	300
Water absorption after 24 hours	ASTM D 570	[%]	< 0.01
Melting point	ASTM D 3418	[°C]	+257 - +263
Temperature		[°C]	-250 - +204

Typical applications

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

Further information

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Conformity

- FDA-compliance 21 CFR § 177.1550
- FDA-compliance 21 CFR § 177.1520
- FDA-compliance 21 CFR § 177.2600
- FDA-compliance 21 CFR § 175.300
- FDA-compliance 21 CFR § 175.105
- FDA-compliance 21 CFR § 176.170
- FDA-compliance 21 CFR § 176.180
- ADI-free
- USP Class VI
- EG 1935/2004
- 3-A Sanitary

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