

Teflon® encapsulated o-rings offer many performance benefits in demanding environments. FEP and PFA Teflon® fluoropolymer shell delivers excellent chemical resistance with the energizing resiliency of a rubber elastomer core combines the best of both materials for o-rings with extreme chemical and temperature resistance.

ABOUT #T1001

O-Ring with a FEP (Teflon®) outer layer encapsulating a Solid FKM (Viton®) core. The Teflon® shell offers excellent chemical and temperature resistance while the FKM core provides the resiliency needed to provide effective sealing. USA and metric cross-sections and nearly unlimited diameters.

FEATURES

- Best chemical compatibility
- FEP is FDA Compliant to 21 CFR 177.1550
- FEP is 3-A sanitary standard
- FEP is USP Class VI
- Excellent moisture resistance and good cryogenic capabilities down to -350° F

APPLICATION EXAMPLES

- Valve stems
- Pumps & turbo pumps
- High pressure applications
- Extreme chemical applications

ADDITIONAL INFORMATION

- Service Temperature of -15° to 400°F
- Spec: ASTM D2116-95a

This information is accurate and reliable to the best of our knowledge. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use.

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES - FEP ENCAPSULATION MATERIAL	ASTM Method	Typical Test Results
Specific Gravity	D792	2.15
Hardness, Shore D	D2240	55
Elongation, %	D638	300
Tensile Strength, psi	D638	4350
Flexural Modulus, psi	D790	95065
MIT Folding Endurance (0.18-0.20 mm Film)	D2176	80000
TR-10 Retraction at lower temperature resistance, °F	D1329	1.4
THERMAL PROPERTIES	ASTM Method	Typical Test Results
Melting Point, °F	D2116	490
ENVIRONMENTAL	ASTM Method	Typical Test Results
Water Absorbtion, 24 hrs, %	D570	<0.01
Weathering		Excellent
ORIGINAL PROPERTIES - FKM ASTM D 2000 M2HK 710 B37 B38 C12	ASTM Method	Typical Test Results
Specific Gravity	D1817	2.32
Hardness, Shore A	D2240	79
Elongation, %	D412	233
Tensile Strength, psi	D412	1672
COMPRESSION SET (22 hrs. @ 200°C)	ASTM Method	Typical Test Results
Permanent Set, %, max.	D395B	7
HEAT RESISTANCE (70 hrs. @ 250°C)	ASTM Method	Typical Test Results
Hardness Change, points, Shore A	D573	+4
Tensile Strength Change, %, max.	D573	+537
Ultimate Elongation Change, %, max.	D573	-34
FLUID RESISTANCE – ASTM #3 Oil (70 hrs. @ 150°C)	ASTM Method	Typical Test Results
Hardness Change, points, Shore A	D471	+0.5
Tensile Strength Change, %, max.	D471	+68
Ultimate Elongation Change, %, max.		-6.5