

FEP: Fluorinated Ethylene Propylene

PRODUCT DESCRIPTION

FEP is a copolymer of tetrafluoroethylene and hexafluoropropylene. This meltprocessible fluoropolymer exhibits excellent resistance to heat, wear and chemicals.

Afton Plastics processes the following grades of FEP:

Teflon™ fluoroplastics grade 9302

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PRODUCT BENEFITS

- Negligible moisture absorption
- Low coefficient of friction
- Non-stick surfaces
- Chemically inert to most industrial chemicals and solvents
- Exceptional dielectric insulation properties
- High degree of stress crack resistance
- Very low gas permeation and outgassing
- Compatible with hot air welding equipment
- Temperature range: -400°F to +392°F
- High resistance to outdoor weathering

TYPICAL APPLICATIONS

- Pump housings and pipe linings
- Fluid handling or chemical processing equipment
- Semiconductor wet bench equipment
- Hostile environment involving chemical, thermal or mechanical stress
- Food processing and packaging equipment
- Medical components

MATERIAL CLASS

- ASTM D 2116 (Type I, II, III, or IV)
- USDA and FDA compliant per 21 CFR-177.1550
- 3A Sanitary Standard 20-17
- USP Class VI



Data Sheet - **TEFLON**[™] FEP

PROPERTY

MECHANICAL/PHYSICAL

Melt Flow Rate Specific Gravity Water Absorption, 24 hr. Tensile Strength, 23°C Ultimate Elongation, 23°C Impact Strength, 23°C, Notched Izod Flexural Modulus, 23°C Durometer Hardness, Shore D Coefficient of Friction

TEST METHOD	UNIT	9302
D2216	g/10 min	2 - 3.9
D792	g/cm³	2.12-2.17
D570	%	<0.01
D638	psi	4,350
D638	%	300 - 325
D256	J/m	No Break
D790	psi	95,000
D2240	D	55 - 56
D1894		0.25

THERMAL

Melting Point, Nominal Oxygen Index Continuous Service Temperature Flammability

ELECTRICAL

Surface Resistivity Volume Resistivity Dielectric Strength Short Time (10 mil film) Dielectric Constant, 23°C, 10³ Hz, Maximum Dissipation Factor, 23°C, 10³ Hz, Maximum Arc Resistance

D3418	°C	255 - 260
D2863	%	>95
	°C	205
UL 94		V-0

D257	ohm-sq	10 ¹⁶
D257	ohm-sq	10 ¹⁸
D149	Volts/mil	2,000
D150		2.15
D150		0.0003
D495	seconds	> 180

Information provided by The Chemours Company FC, LLC.

Note: The data provided in this table are typical for the resins tested and do not represent product specifications. Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Afton Plastics. © 2019 Afton Plastics

GRADE