

Teflon® FEP (Fluorinated Ethylene Propylene)

FEP is chemically a copolymer of hexafluoropropylene and tetrafluoroethylene. It can be described as a fluoropolymer resin having most of the excellent physical, chemical and electrical properties of PTFE fluoropolymer resin but with the ability to be processed using conventional thermoplastics processing equipment.

End products of FEP are known for their excellent chemical resistance, superior electrical properties and high service temperatures of up to 200° C (400° F). In addition, FEP provides outstanding low temperature toughness and unique flame resistance.

Typical Applications:

Typical applications of valve and pump linings, pipe liners, release applications or similar uses where resistance to chemicals at elevated temperature is essential or where serviceability at extremely low temperature is desired.

Specification:

ASTM-D2116

FDA regulation 21 CFR 177.1550 is applicable to DuPont's Teflon® FEP for use as article or components of articles intended to contact food.

Property	ASTM Test Method	Units	Teflon® FEP
Physical			
Specific Gravity	D792		2.15
Mechanical			
Tensile Strength	D1457 D1708 D638	psi	3,400
Elongation	D1457 D1708 D638	%	325
Flexural Modulus	D790	psi	85,000
Folding Endurance	D2176	(MIT) cycles	5-80 x 10 ³
Impact Strength	D256	ft-lb/in	No Break
Hardness, Shore D	D2240		56
Coefficient of Friction, Dynamic	D1894	<10 ft/min	0.2
Thermal			
Melting Point	D3418	°F	500
Upper Service Temperature (20,000h)	UL746B	°F	400
Flame Rating	UL94		V0
Limiting Oxygen Index	D2863	%	>95
Heat of Combustion	D240	Btu/lb	2,200

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.