

Convuluted Tubing Material Properties

MATERIAL PROPERTY	PERFLUORO-ALKOXY (PFA)	FLUORINATED ETHYLENE PROPYLENE (FEP)	ETHYLENE TETRA-FLUOROETHYLENE (ETFE)	POLYTETRAFLUOROETHYLENE (PTFE)	POLYVINYLIDENE FLUORIDE (PVDF)	POLYETHER KETONE* (PEEK)
Service Temperature	-95°F/500°F (-71°C/260°C)	-95°F/400°F (-71°C/204°C)	-65°F/310°F (-54°C/154°C)	-95°/500°F (-71°C/260°C)	-65°F/330°F (-54°C/166°C)	-76°F/392°F (-60°C/200°C)
Tensile Strength	3,000 PSI (20,684 KP)	2,500 PSI (17,237 KP)	5,000 PSI (34,474 KP)	2,500 PSI (17,237 KP)	5,000 PSI (34,474 KP)	7,000 PSI (48,300 KP)
Elongation	250%	200%	100%	175%	250%	100%
Specific Gravity	2.15	2.15	1.70	2.15	1.8 Max	1.26
Heat Aging	2000 Hrs. @ 525°F (274°C)	2000 Hrs. @ 430°F (221°C)	2000 Hrs. @ 350°F (177°C)	2000 Hrs. @ 525°F (274°C)	168 Hrs. @ 347°F (175°C)	2,000 Hrs. @ 464°F (240°C)
Dielectric Strength	12,000V	12,000V	12,000V	12,000V	10,000V	12,000V
Volume Resistivity	1018	1018	1016	1018	1016	1016
Water Absorption	0.03%	0.01%	0.02%	0.01%	0.02%	0.03%
Solvent Resistance	No swelling, stickiness or weight change					
Flammability	Non-burning					
Fungus Resistance	Does not support fungus growth					

* Polyetheretherketone is the suggested material for Halogen-free, low fire hazard requirements.

Outer Jacketing Material Properties

MATERIAL PROPERTY	EPDM (Ethylene Propylene Diene Monomer)	HYPALON (Chlorosulfonated Polyethylene)	NEOPRENE (Polychloroprene)	VITON (Fluoroelastomer)
Temperature Range	-60°F to +300°F (-51°C to +149°C)	-60°F to +300°F (-51°C to +149°C)	-60°F to +250°F (-51°C to +121°C)	-40°F to +392°F (-40°C to +200°C)
Specific Gravity	1.26	1.18	1.25	1.80
Weight: Lbs./Cubic Inch	.045	.043	.045	.055
Abrasion Resistance	Excellent	Excellent	Excellent	Excellent
Wear Resistance	Good	Good	Good	Good
Flame Resistance	Good	Good	Good	Good
Sunlight Resistance	Good	Excellent	Excellent	Excellent
Chemical Resistance:				
Aliphatic Hydrocarbons	Good	Good	Good	Excellent
Aromatic Hydrocarbons	Good	Fair	Fair	Excellent
Ketones, Etc.	Good	Poor	Poor	Poor
Oil & Gasoline	Good	Good	Good	Excellent

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