

## General Electrical Properties

	Cable Type	Impedance (ohms)	Capacitance (pF/foot)	Velocity (%)	Dielectric Constant	Time Delay (nS/foot)
<b>50 OHM</b>	Solid Polyethylene	50	30.8	65.9	2.30	1.54
	Foam PE	50	24.5	83.0	1.45	1.22
	Foam PE	50	24.2	84.0	1.42	1.21
	Foam PE	50	23.9	85.0	1.38	1.20
	Foam PE	50	23.6	86.0	1.35	1.18
	Foam PE	50	23.3	87.0	1.32	1.17
	Foam PE	50	23.1	88.0	1.29	1.16
	Solid PTFE	50	29.2	69.5	2.07	1.46
	Tape PTFE	50	28.6	71.0	1.98	1.43
	Low Density PTFE	50	26.7	76.0	1.73	1.34
	Low Density PTFE	50	25.4	80.0	1.56	1.27
<b>75 OHM</b>	Solid Polyethylene	75	20.6	65.9	2.30	1.54
	Foam PE	75	16.3	83.0	1.45	1.22
	Foam PE	75	16.1	84.0	1.42	1.21
	Foam PE	75	15.9	85.0	1.38	1.20
	Foam PE	75	15.8	86.0	1.35	1.18
	Foam PE	75	15.6	87.0	1.32	1.17
	Foam PE	75	15.4	88.0	1.29	1.16
	Solid PTFE	75	19.5	69.5	2.07	1.46
	Low Density PTFE	75	17.8	76.0	1.73	1.34
	Low Density PTFE	75	16.9	80.0	1.56	1.27
	<b>MISC</b>	Solid Polyethylene	95	16.2	65.9	2.30
Foam PE		95	12.6	85.0	1.38	1.20
Air Spaced PE		95	12.6	85.0	1.38	1.20
Solid PTFE		95	15.4	69.5	2.07	1.46
Air Spaced PE		125	09.6	85.0	1.38	1.20
Air Spaced PE		185	06.5	85.0	1.38	1.20

## Properties of Wire and Cable Insulating Materials

Material	Dielectric Constant	Dissipation Factor	Volume-Resistivity (ohm-cm)	Operating Temperature (Range °C)
PTFE	2.07	0.0003	$10^{19}$ th	-75 to +250
Polyethylene	2.3	0.0003	$10^{16}$ th	-65 to +80
Foam Polyethylene	1.29 - 1.64	0.0001	$10^{12}$ th	-65 to +100
Polyvinylchloride	3.0 - 8.0	0.07 - 0.16	$2 \times 10^{12}$ th	-50 to +105
Polyamide	3.5 - 4.6	0.03 - 0.4	$4 \times 10^{14}$ th	-60 to +120
Silicone Rubber	2.1 - 3.5	0.007 - 0.016	$10^{13}$ th	-70 to +250
Ethylene Propylene	2.24	0.00046	$10^{17}$ th	-40 to +105
FEP	2.1	0.0007	$10^{18}$ th	-70 to +200
Low Density PTFE	1.38 - 1.73	0.00005	$10^{19}$ th	-75 to +250
Foam FEP	1.45	0.0007	$10^{18}$ th	-75 to +200
Polyimide	3.0 - 3.5	0.002 - 0.003	$10^{13}$ th	-75 to +300
PFA	2.1	0.001	$10^{16}$ th	-75 to +260
ETFE	2.6	0.005	$10^{16}$ th	-75 to +150
ECTFE	2.5	0.0015	$10^{16}$ th	-65 to +150
PVDF	7.8	0.02	$10^{14}$ th	-75 to +125