

# 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	1.54
	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 <sup>19</sup> th	-75 to +250
Polyethylene	2.3	0.0003	10 <sup>16</sup> th	-65 to +80
Foam Polyethylene	1.29 - 1.64	0.0001	10 <sup>12</sup> th	-65 to +100
Polyvinylchloride	3.0 - 8.0	0.07 - 0.16	2 x 10 <sup>12</sup> th	-50 to +105
Polyamide	3.5 - 4.6	0.03 - 0.4	4 x 10 <sup>14</sup> th	-60 to +120
Silicone Rubber	2.1 - 3.5	0.007 - 0.016	10 <sup>13</sup> th	-70 to +250
Ethylene Propylene	2.24	0.00046	10 <sup>17</sup> th	-40 to +105
FEP	2.1	0.0007	10 <sup>18</sup> th	-70 to +200
Low Density PTFE	1.38 - 1.73	0.00005	10 <sup>19</sup> th	-75 to +250
Foam FEP	1.45	0.0007	10 <sup>18</sup> th	-75 to +200
Polyimide	3.0 - 3.5	0.002 - 0.003	10 <sup>13</sup> th	-75 to +300
PFA	2.1	0.001	10 <sup>16</sup> th	-75 to +260
ETFE	2.6	0.005	10 <sup>16</sup> th	-75 to +150
ECTFE	2.5	0.0015	10 <sup>16</sup> th	-65 to +150
PVDF	7.8	0.02	10 <sup>14</sup> th	-75 to +125