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## INSULATION AND JACKET

### Typical Properties of Insulation Materials

	PVC	PE	XLPE	FEP	TFE	SBR	Silicone Rubber
Specific Gravity	1.37	0.92	1.20-1.40	2.2	2.15	1.4	1.24
Tensile Strength (PSI x 1000)	1.5-3.8	1.4-2.4	1.8-2.5	2.3-3.1	2.6-6.0	0.5-1.5	0.6-1.2
Elongation, %	200-375	350-550	250-400	200-330	200-500	200-400	125-400
Service Temp Range, °C	-55 to +105	-20 to +75	-65 to +150	-70 to +200	-70 to +260	-40 to +75	-70 to +200
Dielectric Strength V/MIL -.040" WALL	800	1050	700	950	950	500	400
Dielectric Constant 60 Hz to 1MHz	5	2.26	3	2.15	2.1	4	3.1
Water Absorption, % in 24 Hrs	<0.75	<0.02	<0.01	<0.01	<0.01	<1.0	<1.0
Flame Resistance	Self-Extinguishing	Supports Flame	Slow Burning	Non-Flammable	Non-Flammable	Slow Burning	Slow Burning
Ozone Resistance	Excellent	Good	Good	Excellent	Excellent	Excellent	Excellent
Flexibility	Good	Good	Good-Fair	Good	Good	Excellent	Excellent
Abrasion Resistance	Good	Good	Excellent	Excellent	Excellent	Poor	Poor

### Typical Properties of Common Jacketing Materials

	PVC	PE	Nylon	FEP	TFE	Neoprene
Specific Gravity	1.37	0.92	1.09	2.2	2.15	1.52
Tensile Strength (PSI x 1000)	1.5-3.8	1.4-2.4	8.8-11.9	2.3-3.1	2.0-6.0	2.5-4.0
Elongation, %	200-375	350-550	150-380	200-330	200-500	300-500
Service Temp Range, °C	-55 to +105	-20 to +75	-55 to +105	-70 to +200	-70 to +260	-30 to +90
Ozone Resistance	Excellent	Good	Good	Excellent	Excellent	Excellent
Weatherability	Good-Fair	Excellent-Good	Fair-Poor	Excellent	Excellent	Good
Flame Resistance	Self-Extinguishing	Supports Flame	Self-Extinguishing	Non-Flammable	Non-Flammable	Self-Extinguishing
Abrasion Resistance	Fair-Good	Good	Excellent	Excellent	Excellent	Excellent
Flexibility	Good	Poor-Good	Good	Good-Fair	Good	Excellent
Acid Resistance	Fair-Good	Excellent	Excellent	Poor	Excellent	Good
Hydraulic Fluid Resistance	Fair	Good-Fair	Fair-Poor	Good-Fair	Excellent	Good
Organic Solvent Resistance	Good	Fair-Poor	Poor	Good-Fair	Excellent	Good
Resistance to Tearing	Good	Good	Good	Excellent	Good	Good

