

COMPARISON OF WIRE AND CABLE JACKETING MATERIALS



Many specifiers of technical products look for more detailed information on the products they select for their most critical applications. In an effort to help provide data to make more informed decisions,

Anixter has amassed common values of important material characteristics and summarized them in the following table. These values are approximate and nominal and are only intended to be representative.

Values vary from manufacturer to manufacturer and among product grades. These values are predominantly drawn from industrial tray cable products.

Material Characteristics	CSPE (Hypalon*)	Thermoset CPE	Thermoplastic CPE	PVC
Physical Properties				
Tensile Strength (Psi)	2075	2050	1900	1920
Elongation (%)	375	360	285	350
Aging Characteristics (Air Oven, 121° C, 168 Hours)				
Tensile Strength (% of Original)	97	103	105	98
Elongation (% of Original)	75	79	85	70
Flame Resistance				
20 Min. at 70,000 BTU/Hour	Pass	Pass	Pass	Pass
Cable Tray Fire Test				
Oil Resistance (ASTM #2 Oil)				
Test Temperature (°C)	121	121	100	70
Time of Immersion (Hours)	18	18	18	4
Tensile Strength (% of Original)	90	92	91	87
Elongation (% of Original)	91	94	93	82
Low Temperature Properties				
Cold Bend Test Temperature Passed (° C)	-40	-40	-40	-25
Ozone Resistance				
	Outstanding	Excellent	Excellent	Good
Heat Distortion				
% at 121° C	7-9	7-10	7-9	20 - 40
Limiting Oxygen Index				
Percent Oxygen Required to Sustain Combustion (Atmospheric Air is ~21% Oxygen)	30	31	31	28
Acid Gas Content (%)				
	10	14	14	29% (12% for low-acid gas PVC)
Halogen Content (%)				
	14	14	14	29

* Hypalon® is no longer available from DuPont.

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