

CABLE DESIGN OPTIONS

CONDUCTORS:

BARE COPPER (CU)	TINNED COPPER
TINSEL CONDUCTOR	ALLOY CONDUCTORS

COMPOUNDS:

PROPERTIES OF INSULATING AND JACKETING COMPOUNDS

COMPOUND	NOMINAL SPECIFIC GRAVITY	Volt Breakdown (volts/Mil)	Abrasion Resistance	Nominal Dielectric Constant	Flame Retardant Properties	Flexibility
Polyvinyl Chloride (PVC)	1.37	500	Good	5-8	Excellent	Good
Polyurethane (PUR)	1.12	300	Excellent	N/a	Fair	Excellent
Polyethylene Solid (PE)	0.95	600	Good	2-3	Poor	Fair
Polyethylene Foam	0.50	N/a	Poor	1.5	Poor	Good
Teflon (FEP)	2.20	600	Excellent	2.1	Excellent	Fair
Tefzel	1.70	400	Excellent	2.6	Excellent	Fair
Nylon	1.07	400	Excellent	4.0	Poor	Poor
Polypropylene	0.91	650	Excellent	2.2	Poor	Poor
ThermoPlastic Elastomer (TPE)	1.00	650	Excellent	2.4	Good	Good
Hytrell	1.2	860	Fair	3.0	Fair	Excellent

CABLE SHIELD CHARACTERISTICS

Shield Method	Effectiveness Low frequency	Effectiveness Low frequency	Coverage	Flexlife	EMI/RFI EMP
Copper Braid	Excellent	Excellent	60-95%	Fair	Fair
CU. Braid Over AL/Mylar	Excellent	Excellent	100%	Fair to Poor	Excellent
Aluminum	Excellent	Excellent	100%	Poor	Good
Spiral Copper (Serve Shield)	Good	Fair	80-98%	Good	Poor
Semiconductive	Fair	Poor	100%	Good	Poor
Steel Braid	Excellent	Excellent	60-95%	Fair	Excellent

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