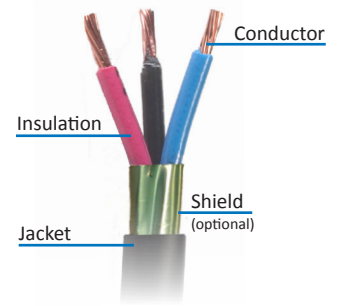


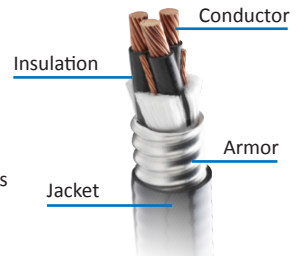
Tray Cable

- Conductor:**
 - Size/gauge - varies
 - Number of conductors or pairs - varies
- Color code** - Varies
- Shielding** - If required, aluminum mylar foil with a drain wire
- Insulation** - Most common types:
 - THHN/THWN (PVC)
 - XHHW (XLP)
 - Ethylene Propylene Rubber (EPR)
 - Cross-Linked Polyolefin (XLPO)
- Jacket** - Most common types:
 - Polyvinyl Chloride (PVC)
 - Chlorinated Polyethylene (CPE)
 - Chlorosulfonated Polyethylene (CSPE)
 - Low Smoke Zero Halogen (LSZH)
- Applications:**
 - Manufacturing, industrial, and commercial distribution systems
 - Control circuits for the operation and interconnection of signaling and protection devices



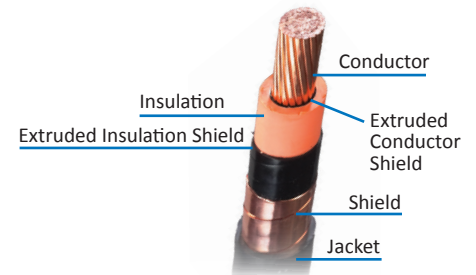
Armored Cable

- Types of Armored Cable:**
 - Aluminum Interlocked Armor
 - Continuously Corrugated Weld
 - TECK 90
- Conductors:**
 - Size/gauge - varies
 - Stranded bare copper
- Shielding** - Shielded or non-shielded
- Insulation:**
 - Polyvinyl Chloride (PVC)
 - Cross-Linked Polyethylene (XLPE)
 - Ethylene Propylene Rubber (EPR)
- Jacket** - Sunlight Resistant Polyvinyl Chloride (PVC)
- Voltage** - 600V, 5kV/8kV, 15kV
- Applications** - Industrial conditions and harsh environments



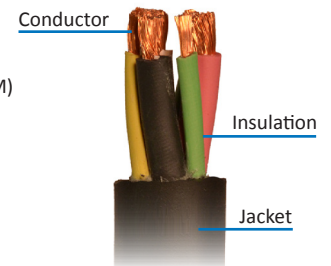
Medium Voltage Cable

- Conductor:**
 - Size/gauge - varies
 - Copper or aluminum
- Shielding:**
 - Copper tape shield, common on Ethylene Propylene Rubber constructions
 - Wire shield, common on Cross-Linked Polyethylene (XLPE) constructions
- Insulation** - Most common types:
 - Ethylene Propylene Rubber (EPR)
 - Cross-Linked Polyethylene (XLPE)
- Grounded or ungrounded:**
 - 133% insulation level = ungrounded
 - 100% insulation level = grounded
- Jacket** - Polyvinyl Chloride (PVC), Chlorinated Polyethylene (CPE), or Low Smoke Zero Halogen (LSZH)
- Voltage** - 5kV, 15kV, 35kV
- Applications** - A broad range of commercial, industrial, and utility products projects



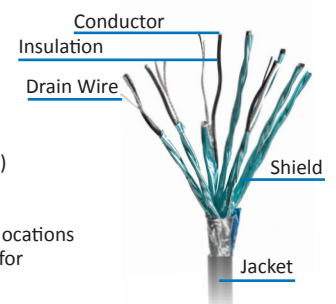
Portable Cord

- Conductor:**
 - Size/gauge - varies
 - Stranded
 - Bare or tinned copper
 - Number of conductors - varies
- Shielding:**
 - Required on 5kV and 15kV
 - Braided tinned copper available on SO
- Insulation** - Most common types:
 - Ethylene Propylene Diene Monomer Rubber (EPDM)
 - Ethylene Propylene Rubber (EPR)
 - Silicone Rubber
 - Polyvinyl Chloride (PVC)
 - Cross-Linked Polyethylene (XLPE)
- Jacket** - Most common types:
 - Chlorinated Polyethylene (CPE-Thermoset)
 - Chlorosulfonated Polyethylene* (CSPE)
 - Polyvinyl Chloride (PVC)
 - Ethylene Propylene Diene Monomer Rubber (EPDM)
 - Thermoplastic Elastomer (TPE)
- Voltage** - 300V, 600V, 2kV, 5kV, 15kV
- Applications:**
 - Portable lighting and equipment
 - Portable power tools such as drills or saws
 - Stationary equipment that is moved often
 - Event computer/data processing equipment
 - Sound equipment used at entertainment/sporting events



Instrumentation Cable

- Conductors:**
 - Size/gauge - varies
 - Number of pairs or triads:
 - Pair-2 conductors twisted together
 - Triad-3 conductors twisted together
- Shielding** - Two main variations:
 - Shielded with drain wire
 - Individually shielded pairs or triads with drains and an overall shield with drain
- Insulation** - Polyvinyl Chloride (PVC) or Ethylene Propylene Rubber (EPR)
- Jacket** - Most common types:
 - Polyvinyl Chloride (PVC)
 - Chlorinated Polyethylene (CPE)
 - Chlorosulfonated Polyethylene* (CSPE)
- Voltage:**
 - 300V - UL Type Power-Limited Tray Cable (PLTC)
 - 600V - UL Type Tray Cable (TC)
- Applications:**
 - Suitable for use in Class I Division II hazardous locations
 - UL approved as sunlight resistant and suitable for direct burial applications



TEMPERATURE CONVERSION CHART

Celsius	Fahrenheit	<p>Conversion Formula</p> <p>Celsius to Fahrenheit $F = (C \times 1.8) + 32$</p> <p>Fahrenheit to Celsius $C = (F - 32) / 1.8$</p>
-40	-40	
-30	-22	
-20	-4	
-10	14	
0	32	
10	50	
40	104	
50	122	
60	140	
80	176	
90	194	
100	212	
110	230	
120	248	
130	266	
140	284	
150	302	
160	320	
170	338	
200	392	
210	410	
220	428	
240	464	
250	482	
450	810	
538	1000	

COMPARATIVE PROPERTIES

[Easy to read charts that you can use to compare the properties of insulation & jacketing compounds.]

Insulation Compounds

P - Poor F - Fair G - Good E - Excellent O - Outstanding

Insulation	Silicone	TFE	PVC	XLPE	PE	EPR
Heat Resistance Oil Resistance	O F-G	O O	G-E F	G G	G G	E P
Water Resistance Alkali Resistance	G-E F-G	E E	F G-E	G-E G-E	E G-E	G-E G-E
Acid Resistance Electrical Properties	F-G G	E E	G-E F-G	G-E E	G-E E	G-E E
Low Temp. Flexibility Weather, Sun Resistance	O O	O O	P-G G-E	O G	E E	G-E E
Abrasion Resistance Alcohol Resistance Flame Resistance	P G F-G	O E E	F-G G-E E	F E P	F E P	G P P

Jacketing Compounds

P - Poor F - Fair G - Good E - Excellent O - Outstanding

Jacket	Neoprene	FEP	PVC	CSPE	LDPE	CPE
Heat Resistance Oil Resistance	G G	O O	G-E F	E G	G G-E	E G-E
Water Resistance Alkali Resistance	E G	E E	F-G G-E	E E	E G-E	G-E E
Acid Resistance Electrical Properties	G P	E E	G-E F-G	E G	G-E E	E F-G
Low Temp. Flexibility Weather, Sun Resistance	F-G G	O O	P-G G-E	F E	E E	F G-E
Abrasion Resistance Alcohol Resistance Flame Resistance	G-E F G	E E O	F-G G-E E	G G G	G E P	G-E G-E G