

WIRE INSULATION MATERIAL

POLYVINYL CHLORIDE INSULATED WIRE

Polyvinyl Chloride-Polyvinyl Chloride-PP

Color-coded polyvinyl chloride is extruded on each individual conductor and on the outer jacket. It has dielectric and mechanical strength, plus flexibility. PVC is resistant to flame, moisture and abrasion. It is also inexpensive and easily pulled through a conduit. It is offered in thermocouple extension grade. Temperature rating: Continuous: -20 to +221°F (-29 to 105°C).

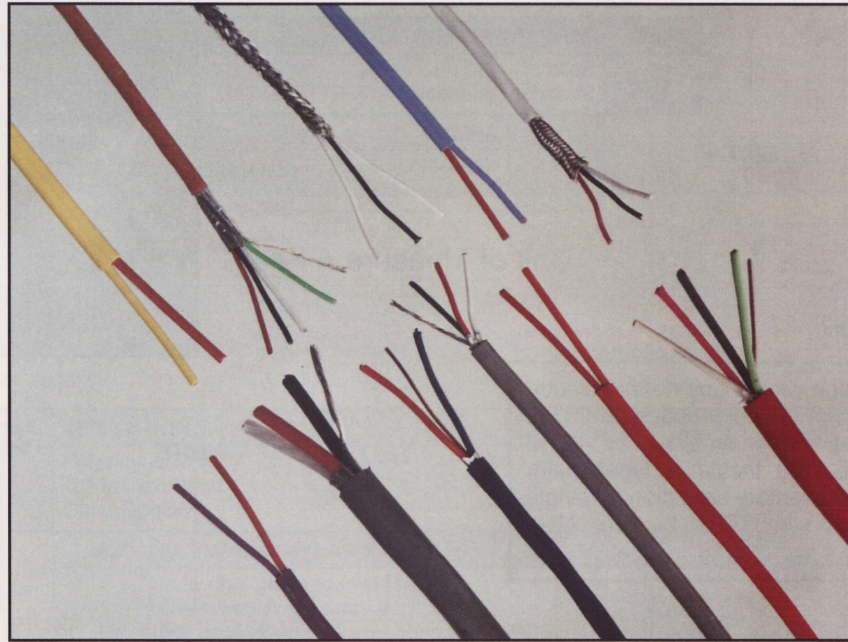
Polyvinyl Chloride Rip-Cord Construction-PC

Polyvinyl chloride is extruded on both positive and negative conductors simultaneously to form a rip-cord construction. Offered in thermocouple grade 24 gauge solid conductors. Temperature rating: Continuous: -20 to +221°F and -29 to +105°C.

Polyvinyl Chloride with Twisted Conductors, Aluminum Mylar* Shield, and Drain Wire-PA

Polyvinyl chloride insulates the positive and negative conductors. The conductors are then twisted and helically wrapped with an aluminum backed Mylar* type. A bare copper drain wire runs through the construction in contact with the aluminum tape furnishing a low resistance path to ground. The twisted shield provides electrostatic interference rejection. The outer jacket is of polyvinyl chloride which has excellent mechanical strength. Wire is resistant to flame, moisture, and abrasion. Offered in extension grade. Thermocouple grade available upon request. Temperature Rating: Continuous: Up to 176°F and 80°C.

*Trade name of DuPont.



KAPTON INSULATED WIRE

Kapton-KK

Kapton polyimide film is applied to both the positive and negative conductor or just to the positive conductor. Kapton is highly resistive to abrasion, radiation and is non-flammable. Excellent for use in extremely harsh environments. No ISA color code. Kapton has no known organic solvents. Kapton is an excellent choice for cryogenic temperatures because its insulating characteristics remain intact at lower temperatures. Offered in thermocouple grade. Temperature rating: Continuous: Up to 550° and 285°C. Intermittent: Up to 400°C or 750°F.

NYLON INSULATED WIRE

Nylon-Nylon-NN

Color-coded nylon is extruded on both positive and negative conductors with a nylon outer jacket. This insulation has excellent abrasion resistance, excellent chemical resistance, and poor moisture resistance. Offered in thermocouple grade. Temperature rating: Continuous: Up to 350°F and 177°C.

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TEFLON INSULATED WIRE

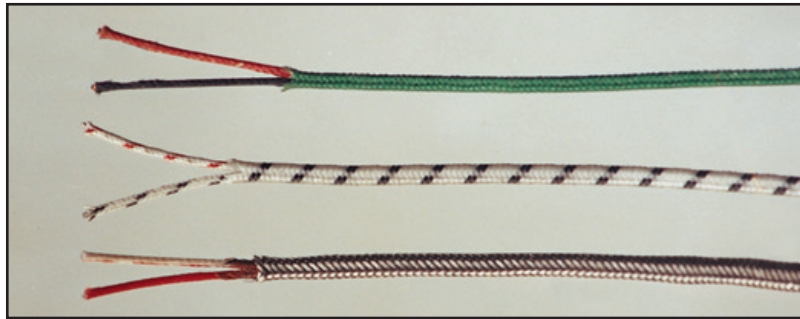
Teflon (extruded) Teflon (extruded) - TT

Color-coded teflon (FEP)* is extruded on the positive and negative conductors and outer jacket. This insulation is unaffected by most corrosive substances, outdoor weather, or lubricants. It is flame resistant and heat aging will not cause embrittlement or cracking. Excellent for cryogenic applications. Offered in thermocouple grade. Temperature rating: Continuous: Up to 400°F and 200°C.

Teflon (Fused TFE Tape) Teflon (Fused TFE Tape) TF

TFE tape is spirally applied to the conductor and heated. This process fuses the tape into a homogeneous layer of TFE. Fused teflon wire offers good abrasion resistance and excellent resistance to both moisture and chemicals. Offered in thermocouple grade. Temperature rating: Continuous: Up to 500°F and 260°C.

*DuPont Trademark



FIBROUS INSULATED WIRE

Fiberglass Braid-GG

Glass braid on individual conductors with glass braid outer jacket. Designed for continuous use in high temperature applications. Poor abrasion and moisture resistance. Offered in thermocouple grade. Temperature rating: Continuous: Up to 900°F and 482°C. Intermittent: Up to 1000°F and 529°C.

Hightemp Fiberglass Braid-HG

A high temperature fiberglass braid is applied over each conductor and then impregnated with a binder. Although the binder improves resistance to abrasion and moisture, it is destroyed above 400°F (204°C). Offered in thermocouple grade. Temperature rating: Continuous: Up to 1300°F and 705°C. Intermittent: Up to 1600°F and 871°C. We recommend SS overbraid with this wire.

Fiberglass Braid with Stainless Steel Overbraid-GS and HS

A stainless steel overbraid is applied to fiberglass wire to increase the wires resistance to abrasion, mechanical and physical damage. It may be applied to 14 through 30 gauge conductors.

Refrasil-RR

Vitreous silica is applied on both positive and negative conductors with a vitreous silica outer jacket. Refrasil is not color coded. Used in high temperature applications. Moisture and abrasion resistance only fair. Offered in thermocouple grade. Temperature rating: Continuous: Up to 1600°F and 871°C. Intermittent: Up to 1800°F and 982°C. We recommend SS overbraid with this wire.

Nextel-NE

A high temperature ceramic fiber is applied over each conductor and then overall. Nextel is not colored coded. Although nextel is not recommended for use with platinum thermocouples, it can be used as an excellent option for other high temperature applications. Its use is limited by the temperature rating of the thermocouple wire it insulates. It is frequently used in furnace and traveling thermocouple applications. Temperature rating: Continuous: Up to 2200°F. Trademark of Sumitomo Corporation. We recommend SS overbraid with this wire.