Wire Insulation Identification

Insulation Code	Insulation Overall Conductors		Appearance of Thermocouple Grade Wire	Temperature Range, Insulation	Abrasion Resistance	Flexibility	Water Submersion
PP (Extension Grade- EXPP)	Polyvinyl Chloride (PVC)	Polyvinyl Chloride (PVC)		-40 to 105°C -40 to 221°F	Good	Excellent	Good
(Extension Grade- EXFF)	FEP Teflon® or Neoflon	FEP Teflon® or Neoflon		-200 to 200°C -338 to 392°F	Excellent	Good	Excellent
(Extension Grade- EXTT)	PFA Teflon® or Neoflon	PFA Teflon® or Neoflon		-267 to 260°C -450 to 500°F	Excellent	Good	Excellent
KK	Kapton	Kapton		-267 to 316°C -450 to 600°F	Excellent	Good	Good
TG	Glass Braid	PFA Teflon® or Neoflon		-73 to 260°C -100 to 500°F	Good	Good	Excellent
(Extension Grade- EXGG)	Glass Braid	Glass Braid		-73 to 482°C -100 to 900°F	Poor	Good	Poor
НН	High Temp Glass Braid	High Temp Glass Braid		-73 to 704°C -100 to 1300°F	Poor	Good	Poor
XR	Refrasil Braid	Refrasil Braid		-73 to 871°C -100 to 1600°F	Poor	Good to 315°C (600°F)	Poor to 315°C (600°F)
Standard Braid XL-Loose Braid XT-Tight Braid	Nextel Braid	Nextel Braid		-73 to 1204°C -100 to 2200°F	Poor	Good	Poor
XS	Silica	Silica		-73 to 1038°C -100 to 1990°F	Poor	Good	Poor
TFE	TFE Teflon®	TFE Teflon®		-267 to 260°C -450 to 500°F	Excellent	Good	Excellent
			color code	To order EC color code see pg. H-9			

and Application Guide

	F	Resistance To				
Solvent	Acid	Base	Flame	Humidity	Comments	
Fair	Good	Good	Good	Good	Color Coded PVC Extruded Over Each Bare Wire. PVC Applied Over Insulated Primaries. Affected by Ketones, Esters	
Excellent	Excellent	Excellent	Excellent	Excellent	Color Coded PVC Extruded Over Each Bare Wire. PVC Applied Over Insulated Primaries. Affected by Ketones, Esters	
Excellent	Excellent	Excellent	Excellent	Excellent	Color Coded PFA Extruded Over Each Bare Wire. PFA Jacket Extruded Over Insulated Primaries. Superior Abrasion and Moisture Resistance. Same Basic Characteristics as FEP but Higher Temperature Rating	
Good	Good	Good	Good	Excellent	Fused Kapton Tape Approx. 0.15 mm Applied to Conductors. A 0.10 mm Jacket Is Then Applied to Both. Excellent Moisture and Abrasion Resistance, High Dielectric Strength (7 kV/mil) Retains Much Physical Integrity After Gamma Radiation. FEP Is Used as Adhesive Binding Agent (Melts at approx. 260°C [500°F])	
Excellent	Excellent	Excellent	Excellent	Excellent	PFA Extruded Over Each Bare Wire and a Glass Braid on the Jacket. May Be Used for Single Measurement to 343°C (650°F)	
Excellent	Excellent	Excellent	Excellent	Fair	0.12 mm Glass Braid Over Each Conductor, and Binder Impregnated. Overall Glass Braid Applied and Bindered. Binder Improves Moisture and Abrasion Resistance but Is Destroyed Above 204°C (400°F)	
Excellent	Excellent	Excellent	Excellent	Fair	High Temp. Glass Braid Over Each Conductor, and Binder Impregnated. Overall High Temp Glass Braid Applied and Bindered. Binder Improves Moisture and Abrasion Resistance but Is Destroyed Above 400°F	
Excellent	Good to 315°C (600°F)	Good to 315°C (600°F)	Excellent	Poor	Braid of Vitreous Silica Fiber Applied to Each Bare Wire, Then Over Both, Suitable to 982°C (1800°F) if Not Subjected to Flexure or Abrasion	
Excellent	Good	Good	Excellent	Fair	High Temp, Alumina-Boria-Silica Ceramic Fiber Braided Over Each Conductor Then Over Both. Not Recommender for Platinum Thermocouples or Exposure to Molten Tin and Copper, Hydrofluoric or Phosphoric Acids, or Strong Alkalie	
Excellent	Good	Poor	Excellent	Fair	Silica Is a Very High Purity, Chemically Stable Yarn. (SiO2 Content 99%)	
Excellent	Excellent	Excellent	Excellent	Excellent	Color Coded TFE Tape Applied to Conductors and Jacket. Superior Abrasion, Moisture, and Chemical Resistance.	
		ANSI	To order			

