



PTFE INSULATED WIRE & CABLES



PTFE Cables have outstanding mechanical & electrical properties. They are heat resistant and have its application for temperature range from **-65** °C to 260 °C.

In most adverse industrial conditions, where chemical fumes & other liquids make all other types of cables are vulnerable, PTFE polymer becomes an excellent solution as it is chemically inert to most of industrial chemicals. Its outstanding di electric properties even at high elevated temperatures make it suitable for harsh industrial applications.

ELTEC PTFE wires conforms to US Military MIL - W - 16878 and Indian defense specifications JSS 51034.92.

As per these standards, PTFE wires are classified in three main working voltage grades.

GRADE	SPARK TESTING	DIE ELECTRIC TESTING
ET (250 V)	2500 V AC	1500 V AC
E (600 V)	3400 V AC	2000 V AC
EE (1000 V)	5000 V AC	3000 V AC

APPLICATIONS	PRODUCT FEATURES					
Hook up wires for high temperature panels	Continuous use up to 260 °C					
 Equipment for Aircraft, Defense, Satellite & Radar 	 Intermittent use up to 300 °C 					
High Performance Motors, Transformers & Rectifiers	 High dielectric values resulting in excellent space & weight saving 					
Wire Harness assembly	 Inert to most chemicals & fluids even at elevated temperature & pressure 					
Electronics & Communication Equipment	Unaffected by oils, lubricants & hydraulic fluids					
Process Instrumentation	 Non flammable, non toxic, resistant to solder iron damage 					
Medical & Scientific Instruments	Suitable for high frequency operation					
 Sensors, Load Cells & Pressure Transducers 	 Immune to agene, fungus & water absorption 					
Wiring for Heaters, Ovens & Furnace	Resistance to UV resistance & stress creaking					
Thermocouple & RTD Cables	High strain & abrasion resistance					

PRODUCT SPECIFICTIONS:						
Conductor	oft Annealed silver plated or nickel plated copper wires as per MIL – 16878D. Refer Table					
Core Insulation	Spirally Wrapped PTFE Tape and Sintered					
No. of core	Single or Multi core					
Construction	Twisted for Multi core cables					
Outer Sheath	Spirally Wrapped PTFE Tape and Sintered					
Screening	Silver Plated Copper wire or SS Wire					



ELTEC CABLES & INSTRUMENTS

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EMPOWERING PROCESS MANAGEMENT

VIRE SIZE Size In AWG	No. of	Cross	Conductor Dia. (Nom.) In mm	Conductor Resistance (D.C) per 1000 Mtr. At 20 °C in Ohms (Max)	Elongation % (Min)	Over all diameter of Insulated wire in mm						Max.
	Strands Dia. of each	Sectional Area of					OV AC	For 600 V AC Grade OR 'E'		For 1000 V AC Grade OR 'EE'		- Current Rating
	Strand in mm	Conductor In mm				(Min)	(Max)	(Min)	(Max)	(Min)	(Max)	In Amps.
32(1)	1/0.20	0.0324	0.200	557.7	5.5	-	-	0.64	0.86	0.86	1.07	-
30(1)	1/0.25	0.0507	0.250	356.4	9.0	0.51	0.61	0.67	0.86	0.91	1.12	2.0
28(1)	1/0.32	0.0806	0.320	224.4	9.0	0.58	0.69	0.74	0.94	0.99	1.19	3.0
26(1)	1/0.40	0.1282	0.400	140.9	9.0	0.66	0.76	0.81	1.02	1.07	1.27	4.0
24(1)	1/0.51	0.2047	0.510	88.4	15.0	0.76	0.86	0.91	1.12	1.17	1.37	5.0
22(1)	1/0.64	0.3243	0.640	56.1	20.0	0.86	1.02	1.04	1.27	1.30	1.52	6.0
20(1)	1/0.81	0.5168	0.810	34.7	20.0	1.07	1.17	1.22	1.42	1.47	1.68	8.0
30(7/38)	7/0.10	0.0568	0.310	332.3	5.5	0.56	0.66	0.71	0.91	0.97	1.17	3.0
28(7/36)	7/0.13	0.0887	0.380	210.5	5.5	0.64	0.74	0.79	0.99	1.04	1.25	3.5
26(7/34)	7/0.16	0.1409	0.480	133.7	9.0	0.74	0.84	0.89	1.09	1.14	1.35	4.0
24(7/32)	7/0.20	0.2270	0.610	83.2	9.0	0.86	0.97	1.02	1.22	1.27	1.47	6.0
22(7/30)	7/0.25	0.3547	0.760	52.5	13.5	1.02	1.12	1.17	1.37	1.42	1.63	7.0
20(7/28)	7/0.32	0.5630	0.970	33.0	13.5	1.2	1.32	1.37	1.58	1.63	1.83	9.0
18(7/26)	7/0.40	0.8969	1.220	20.7	13.5	-	-	1.63	1.88	1.88	2.13	15.0
26(19/38)	19/0.10	0.1540	0.510	126.7	5.5	0.74	0.84	0.89	1.09	1.14	1.35	4.0
24(19/36)	19/0.13	0.2407	0.640	80.2	9.0	0.86	0.97	1.02	1.22	1.27	1.47	6.0
22(19/34)	19/0.16	0.3820	0.810	49.8	9.0	1.02	1.12	1.17	1.37	1.42	1.63	7.0
20(19/32)	19/0.20	0.6162	1.020	30.3	9.0	1.22	1.32	1.37	1.58	1.63	1.83	9.0
18(19/30)	19/0.25	0.9627	1.270	19.1	13.5	-	-	1.63	1.88	1.88	2.13	15.0
16(19/29)	19/0.29	1.2293	1.450	14.9	13.5	-	-	1.85	2.21	2.11	2.41	18.0
15(19/28)	19/0.32	1.5272	1.600	12.5	13.5	-	-	2.00	2.23	2.20	2.42	21.0
14(19/27)	19/0.36	1.9412	1.830	9.5	13.5	-	-	2.24	2.59	2.49	2.90	23.0
12(19/25)	19/0.45	3.0848	2.310	6.0	13.5	-	-	2.27	3.07	2.97	3.38	35.0
11(19/24)	19/0.50	3.7320	2.500	5.0	13.5	-	-	2.91	3.26	3.16	3.56	40.0
10(19/22)	19/0.64	6.1147	3.200	3.0	13.5	-	-	+	-	3.86	4.26	45.0
16(37/32)	37/0.20	1.2000	1.400	15.0	13.5	-	-	1.90	1.95	1.90	2.25	18.0
14(37/30)	37/0.25	1.8886	1.750	10.0	13.5	-	-	2.25	2.37	2.35	2.65	25.0
12(37/28)	37/0.32	2.9742	2.240	6.5	13.5	-	-	2.79	2.89	2.84	3.22	33.0
10(37/26)	37/0.40	4.7397	2.820	3.9	13.5	-	-	3.23	3.58	3.48	3.89	43.0
08(133/29)	133/0.29	8.6054	4.290	2.5	13.5	-	-	-	-	5.06	5.56	50.0
06(133/27)	133/0.36	13.5889	5.410	1.4	13.5	-	-	-	-	6.20	6.93	60.0
04(133/25)	133/0.45	21.5900	6.750	1.2	13.0	-	-	2	-	7.75	8.40	75.0
02(133/23)	133/0.57	33.9514	8.550	-	13.0	4	-	-	+:	9.75	10.70	100.0
0(133/21)	133/0.71	52.7749	10.650	-		-	-	-	-	11.85	12.80	135.0







PTFE INSULATED HOOK UP WIRE:

ELTEC PTFE Insulated hook- up wires are used extensively for both electrical and electronic equipments. Hook- up wires are required to perform in increasingly critical environments. Cost effective production methods necessitate uniform wire handling characteristics, such as **strip ability, strand uniformity, precise dimension and permanent colors.**



PTFE INSULATED POWER CABLES:

ELTEC PTFE Insulated Power Cables are used for critical high temperature Industrial applications near boilers, furnaces, ovens etc. in processing plants. PTFE wires normally come with silver plated copper wire conductors (190°C) or nickel plated copper wire conductors (260°C on request).



PTFE INSULATED INSTRUMENTATION CABLE

ELTEC PTFE Instrumentation Cable products are used for signal and energy transmission with minimum interference, and the they are sunlight, heat, and moisture resistant means they can survive in some of the toughest conditions.



PTFE INSULATED MULTICORE SHIELDED CABLE

ELTEC PTFE Insulated Multi Core Shielded cables are specially designed for its application in electronics & communication equipments, Various equipments for satellite, defense, Radar & Space applications.



PTFE INSULATED RTD CABLE

ELTEC PTFE Insulated RTD CABLES are generally used to transmit signal from RTD sensor to control unit.

Multi stranded SPC conductors are used and are available in 2 core 3 core, 4 core, 6 core, 8 core or even more as per requirement. They are further SPC shielded or outside SS Metal braided as per requirement.



PTFE INSULATED THERMOCOUPLE CABLE

THERMOCOUPLE CABLES are used to transmit signal from Thermocouple sensor to control unit. **J, K, T, E, N, R, S etc. type of Thermocouple & Extension grade** cables. They are available in flat & twisted pair construction. They can be further shielded or outside SS Metal braided as per requirement.





CERTIFICATIONS:



Eltec Cables & Instruments

16, Bhaktinagar Station Plot, Rajkot - 360002 (Gujarat), India.

has been assessed by RICL and found to comply with the requirements of

ISO 9001: 2015 **Quality Management System**

For the following activities:

Manufacturer and Exporter of Thermocouple Wires & Cables, RTD Cables, Instrumentation Cables, High Temperature PTFE, Fiber Glass Wires & Cables, Temperature Sensors such as Thermocouple, RTD PT 100 & Thermowell.

This Certificate is Valid from 13/01/2020 Until 12/01/2021

Date of Initial Certification: 13/01/2020 Ist Surveillance on or before: 12/12/2020 IInd Surveillance on or before: 12/12/2021 Certification Valid Until: 12/01/2023







Royal Impact Certification Ltd. Certificate details entered into JAS-ANZ register on 13/01/2020

623, Tower-B, iThum, Plot No. A - 40, Sector - 62, Noida 201301, India. www.isointernational.org, info@isointernational.org Phone: +91 120 4113893 This Certificate can be verified at: www.isointernational.org and www.ias-anz.org

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