



EMPOWERING PROCESS MANAGEMENT



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
<ul style="list-style-type: none"> Hook up wires for high temperature panels Equipment for Aircraft, Defense, Satellite & Radar High Performance Motors, Transformers & Rectifiers Wire Harness assembly 	<ul style="list-style-type: none"> Continuous use up to 260 °C Intermittent use up to 300 °C High dielectric values resulting in excellent space & weight saving Inert to most chemicals & fluids even at elevated temperature & pressure
<ul style="list-style-type: none"> Electronics & Communication Equipment Process Instrumentation 	<ul style="list-style-type: none"> Unaffected by oils, lubricants & hydraulic fluids Non flammable, non toxic, resistant to solder iron damage
<ul style="list-style-type: none"> Medical & Scientific Instruments Sensors, Load Cells & Pressure Transducers Wiring for Heaters, Ovens & Furnace Thermocouple & RTD Cables 	<ul style="list-style-type: none"> Suitable for high frequency operation Immune to agene, fungus & water absorption Resistance to UV resistance & stress creaking High strain & abrasion resistance

PRODUCT SPECIFICATIONS:

Conductor	Soft 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



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WIRE SIZE AS PER MIL – W - 16878 / NEMA HP-3

Size In AWG	No. of Strands Dia. of each Strand in mm	Cross Sectional Area of Conductor in mm	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. Current Rating In Amps.
						For 250 V AC Grade OR 'ET'		For 600 V AC Grade OR 'E'		For 1000 V AC Grade OR 'EE'		
						(Min)	(Max)	(Min)	(Max)	(Min)	(Max)	
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	-	-	-	-	7.75	8.40	75.0
02(133/23)	133/0.57	33.9514	8.550	-	13.0	-	-	-	-	9.75	10.70	100.0
0(133/21)	133/0.71	52.7749	10.650	-	-	-	-	-	-	11.85	12.80	135.0



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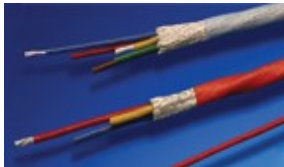
PTFE INSULATED HOOK UP WIRE:

*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.***



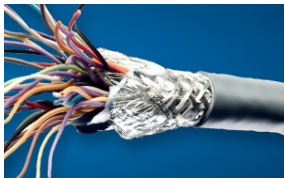
PTFE INSULATED POWER CABLES:

*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).***



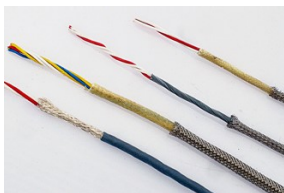
PTFE INSULATED INSTRUMENTATION CABLE

ELTEC PTFE Instrumentation Cable products are used for signal and energy transmission with minimum interference, and 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.*



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