

# GHAZIABAD FLOPOL INSULATION PUT. LTD. (FLUORO™ WIRE)

Manufacturer & Exporter High Quality PTFE Insulated Wires, Cables and Sleeves. (LCSO Approved)



www.gflopol.in www.gflopol.com



# COMPANY PROFILE

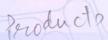
HOMB

Our company Ghaziabad Flopol Insulations Pvt. Ltd. was formed in 1986 as a PVT. Ltd. company. It started production of PTFE wire. Cables and sleeve in 1987. It was promoted by Mr. Surendra Rastogi, one of the most experienced Person in the manufacturing of the PTFE products. Since then we are performing well and doing challenging jobs in our Line.

We introduced many new processes to simplify the manufacturing of PTFE cable. We also replaced cables of other international companies being Used in automobile manufacturing with our PTFE wire.

About US.

In this way we created New field for the use of PTFE wire in bulk. This one point of replacing product Of international companies is enough to prove our ability to deliver best quality Product. Our company is ISO 9008 and LCSO approved.





# GFI RANGE OF PRODUCT

- PTFE Insulated Equipment hookup wires & Cables Single/ Multistrand, in by colour & Tri Colour.
- PTFE Insulated high voltage corona resistant cables upto 22 KV AC RMS/50 KV DC working.
- Single/Multicore, twisted, shielded and PTFE/PVC Jacketed Cables.
- Multicore flat ribbon cables (2Core to 44 Cores)
- Twin parallel Balloon wires.
- R.F. Coaxial Cable, PTFE Insulated RG-A/U type.
- Thermocouple compensating cables (IS 8784)
- Coaxial & Triaxial Cables.
- PTFE Insulated Silicon varnished Fibre Glass Jacketed cables.
- PTFE Sleeves.
- Cured PTFE tapes/sheets.
- Heat tracing Cables.
- · PIFE Gland Packing





# POLY TETRA FLUORO ETHYLENE (PTFE)

PTFE is a unique thermoplastic with outstanding properties and Very peculiar and non-conventional methods are needed to process it. PTFE insulation is highly recommended for miniature applications where insulation melt back may a specific problem.

PTFE is the most thermally stable chemically and resistant among all carbonaceous insulating compounds. It is unaffected by sunlight, moisture and practically all chemicals. Temperature range -200°C +260°C and electrical properties are very constant over temperature range and wide range frequencies. PTFE is used for both primary insulation and jackets. Because of its superior thermal properties, insulated electric wires made with, PTFE are used in electric and electronic machinery: because of the excellent property of almost absolute resistance to all commonly used chemicals it is used extensively in chemical industry: because of its non polar molecular structure it is ideal for use as high frequency insulating material and is used for manufacture of insulation covering for use in aircraft, electrical wiring small coaxial cable, industrial control cables. wrapping tapes etc. Its low abrasion and remarkable non-sticking properties prevent almost all adhesive materials from it. It plays a significant role in the petrochemical and for electronic industry and in the strategic fields of Defence. Atomic Energy, space Research and also in the filed of replacement and maintenance.



# PRODUCT SUMMARY SHEET

# PTFE HOOK-UP (EQUIPMENT) WIRES

Using the finest annealed cooper silver plated (200°C maximum working temperature), or nickle plated (260°C working temperature), strain free 7, 19 or 37 stranded (or single conductors for small sizes). AWG 32 to AWG10 standard electronic colours (Plus Pink and transparent), Bicolours and tricolours (one or two stripes), in more than 200 colour combinations available readily. Completely unaffected by ageing and from attack by almost all known chemicals and solvents. Best overall electrical mechanical/chemical properties from -200°C to +260°C and from DC to 10 Kilomega herts. Type ET. 250V AC RMS working. Type E, 600V, Type EE, 1000V. The entire range is as per JSS 51034 for use in DEFENCE equipment. The product range also covers the specifications as per MIL-W-16878-D and Ministry of Aviation U.K.EL-1930.

# HIGH VOLTAGE CORONA RESISTANT CABLES

Same conductor and sizes as stated above and capable of operating upto 22KV AC RMS-50 KV DC working.

# **MULTICORE SHIELDED & JACKETED CABLES**

The Standard braid shielding and the more sophisticated "Served" Sheilding (much longer flex-life 100% overlap coverage and upto 60% reduced weight) are available. Single twin planetary-twisted pairs traids etc. available as per customer's requirement. Insulated conductors of assorted sizes with cables can be formed into multicore cables, (with or without overall sheilding), with tape wrapped Mylar, PTFE or conventional extruded PVC jackets/sheaths, complete harness as per customer's requirement.

#### FLAT BONDED RIBBON CABLE

Flat Bonded Ribbon Cables Consisting 2 to 44 cores. Constructions in twisted pairs can be provided.

### PTFE RF COAXIAL CABLE

The wires are manufactured as per MIL-C-17 or JSS 51001. The conductor used is Silver Plated Copper weld steel wire, PTFE Insulated and specific braiding is done as per specifications and standards. This is again Jacketed with PTFE or Fibre Glass as per standard.

## PTFE THERMOCOUPLE WIRES & COMPENSATING CABLES

A pair of different wires e.g. Nickle-Chromium, Ni-Al, Iron Contestant, NIR Contestant etc. as per DIN43760 standards is made in twin flat or round. From to make thermocouple leads being used for accurate temp measuring and controls. As accurate and economical way over conventional insulations. The wires may be designed & manufactured as per customers specific requirements.

## PTFE TRIAXIAL CABLES

For very low levels of Signal leakage triaxial & double shielded cables are used, to minimise this leakage. Triaxial cables are preferred. Triaxial shielding construction minimise 10-20% less Leakage in comparison to double shielded, Cable

The triaxial cable has the usual outer conductor braid. A dielectric layers is provided over it and an additional braid is again provided. outer Jacket is of PVC in normal course depending upon the attenuation, stability requirements and frequency.

#### **PTFE SLEEVES**

As per JSS 54802 MIL-1-22129 these offer all the advantages of PTFE insulation and are available in bore sizes. of 0.5 mm to 30 mm. wall thickness from 0.25 mm, 0.3 mm, 0.4 mm and 0.8 mm. The unusually smooth inside and outside and free from soldering iron damage permits an even greater size reduction. Complete colour range is available.

## **CURED PTFE TAPES/SHEETS**

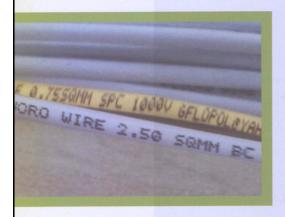
An unusual, reliable non-stricking cured PTFE tape for use at high temperature slot-liner (upto 300°C). The tape offers the best possible overall electrical characteristics with complete freedom from ageing. The range of thickness is from 0.075 mm to 0.4 mm. In comparison to the unsintered PTFE tape (which is the best available sealent for threaded joints and fittings), it is about 5 to 10 times stronger mechanically. It's density is about 2.1 compared to 1.45 for unsintered/non-cured tapes.

#### **MARKING ON PTFE CABLE**

We are marking PTFE wire and cables for increasing our responsibility towards quality.

## **TECHNICAL ADVISORY SERVICE**

We offer you the latest solutions for your toughest problems. While describing your application/requirements please state the following.

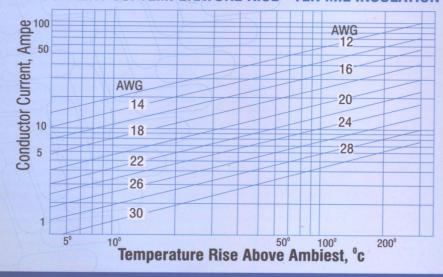


WORKING VOLTAGE CURRENT. LONGEST INTERCONNECTION AND THE PERMISSIBLE VOLTAGE DROP IN ITS AMBIENT AND A DESCRIPTION OF THE SURROUNDING TYPE OF CENTRE CONDUCTOR PREFERRED. SHEILDING (BRAIDED OR SERVED AND TYPE OF WIRES) AND ALL OTHER RELEVANT DETAILS.

We need you functional performance requirements in preference to the dimensional wire size statements. Detailed information of the items described above is available on request.

AWG	Number of Strand	AWG	Nominal Conductor Diameter	Nominal Strand Diameter	Nominal Cross Sectional Area	Maximum Resistance Ohms/100m	AC RMS) Nom. O.D.	E(600V AC RMS) Nom. O.D.	AC RMS) Nom. 0.D
			(MM)		(Sq.MM)	At 20°C	(MM)	(MM)	(MM)
8	133	29	4.290	0.286	8.54	0.217	1 1		5.30
10	37	26	2.835	0.405	4.76	0.390	_		3.586
11	37	27	2.520	0.360	3.76	0.499	-	3.02	3.27
	19	24	2.550	0.510	3.88	0.489	-	3.05	3.30
12	37	28	2.240	0.320	2.98	0.620		2.74	2.99
	19	25	2.275	0.455	3.09	0.610	-	2.775	3.02
13	19	26	2.000	0.405	2.45	0.770	-	2.50	2.75
14	37	30	1.750	0.250	1.92	0.98	-	2.25	2.50
	19	27	1.800	0.360	1.93	0.96	_	2.30	2.55
15	19	28	1.600	0.320	1.52	1.22	-	2.10	2.35
16	37	32	1.400	0.200	1.16	1.54	7 -	1.90	2.15
	19	29	1.430	0.286	1.22	1.51	-	1.93	2.13
18	37	34	1.120	0.160	0.74	2.50		1.93	2.18
	19	30	1.250	0.250	0.93	1.93		1.75	2.00
	7	26	1.215	0.405	0.90	2.10		1.715	1.96
20	37	36	0.910	0.130	0.49	3.44	1.21	1.713	1.66
	19	32	1.000	1.000	0.60	3.02	1.30	1.50	1.75
	7	28	0.960	0.320	0.56	3.28	1.26	1.46	1.73
22	19	34	0.800	. 0.160	0.38	4.90	1.10	1.30	1.55
	7	30	0.750	0.250	0.34	5.20	1.05	1.25	1.50
	1	22	0.645	0.645	0.33	5.60	0.94	1.14	1.39
24	19	36	0.650	0.130	0.25	7.70	0.95	1.15	1.40
	7	32	0.600	0.200	0.22	8.20	0.90	1.10	1.35
	1	24	0.510	0.510	0.20	8.80	0.81	1.01	1.96
26	19	38	0.500	0.100	0.15	12.00	0.80	1.00	1.25
	7	34	0.480	0.160	0.14	13.20	0.78	0.98	1.23
	1	26	0.450	0.405	0.13	14.10	0.70	0.90	1.15
28	7	36	0.390	0.130	0.90	20.93	0.69	0.89	1.13
	1	28	0.320	0.320	0.80	22.50	0.62	0.82	1.07
30	7	38	0.300	0.100	0.05	32.50	0.60	0.80	1.15
	1	30	0.250	0.250	0.05	35.70	0.55	0.75	1.00
	7	40	0.240	0.080	0.04	54.60	0.54	0.74	0.99
	1	32	0.200	0.200	0.03	55.90	0.50	0.74	0.95

# **CURRENT VS. TEMPERATURE RISE - TEN MIL INSULATION**



Circular cross sectional wire suspended horizontally in still air.
Heat transfer by convection and radiation.