

### INDIA'S FIRST 100% LEAD FREE WIRES

Started up as a small- scale cable unit more than 60 years ago and became one of the nation's leading cables manufacturing company.





Paramount Communications Ltd., part of the Paramount Cables Group started up as a small- scale cable unit more than 60 years ago and became one of the nation's leading cables manufacturing company. Our journey has been laced with hard work and perseverance and today we have our presence in the public and the private sectors dealing with Power, Telecom, Defense, Railways, Infrastructure and Space Research. With the experience, expertise and efficiency, we have carved a niche in the global cable industry.



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### MESSAGE FROM THE CHAIRMAN

It has been an incredible journey that started with a simple dream of providing world class and cost effective products to feed the growing Indian market.

> Our founder, Late Mr Shyam Sundar Aggarwal established Paramount Cables as a small firm in1955 with a manufacturing setup of one machine and a handful of employees.

Today, more than 60 years later, we have grown into an industry leader with a group turnover of Rs 400 crore with a complete range of cables including House Wiring, CATV Cables, Optical Fiber cables for Telecom & Defence, High Voltage & Low Voltage Power Cables, Control & Instrumentation Cables etc, with almost all the esteemed customers and approvals in India and exports to more than 50 countries.

Paramount has always laid a great emphasis on manufacturing excellence, technological advancement and customer satisfaction. We believe that the relationship built with our customers is our biggest asset and is our motivation to keep providing them with the best-in-class products.

Thank you for choosing Paramount Cables as your trusted Wires & Cables partner.

~ Sanjay Aggarwal





Bureau of Indian Standards (BIS) British Standard Specifications (BSS) American Standard for Testing Methods (ASTM) Indian Railway Specifications (IRS) Indian Telecom Department (ITD) Telecom Engineering Centre (TEC)

MANUFACTURING STANDARDS

Toyo Engineering India Ltd
Tata Projects
Bongaigaon Refinery & Petrochemical Ltd
Andhra Pradesh Power Generation Corp Ltd

L&T	HUDA	BESCOM
PWD	PGCIL	DHBVN
NTPC	CPWD	UHBVN
BHEL	SAIL	NALCO
BSNL	HPCL	CIDCO
BSES	IOCL	MECON
RDSO	NBCC	PGCIL
HPCL	NPCIL	OPTCL





*Our quality is ensured by the Tari ffAdvisory Committee & has Fire Insurance Approval.* 

High-tech German multi-draw and bunching machines for greater flexibility.

Easy to pull through conduits.

PVC –fire retardanthigh oxygen and temperature index.

The insulation for high resistance and dielectric strength.

Wires subjected to High Voltage Spark Testing to ensure quality.

IS 694:2010 certification gives safety from electrical shocks, short circuits & fires.

Products subjected to stringent tests and quality control measures at Quality Assurance & Testing Labs.

Guaranteed 90 meters packing length.





A 'PARAMOUNT' EDGE

The 100% Lead-free factor makes our wires non-toxic and completely safe

The 99.97% pure Copper wires are high on quality and energy saving

100% conductivity which helps save energy and lower electricity bills. LFHR FRLS wires emit very low smoke and gas

Environment friendly as there is NO release of Halogen into the atmosphere; thus protection of the ozone layer

These factors are predominant in the manufacturing of the Paramount Cables at our state-of-the-art plant in Khushkhera, Rajasthan and Dharuhera, Haryana.

Our wires have a long life and with our safe wiring solutions, you ensure that your family has a secure & long life too!





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### THE 'PARAMOUNT' ENVIRONMENT ADVANTAGE



### **PVC INSULATED INDUSTRIAL CABLES**



### LF FR ELECTRICAL WIRES: (LEAD-FREE FIRE RETARDANT)

- » PVC used is fire-retardant because of the high oxygen & temperature index.
- » Insulation has high resistance and dielectric strength and is applied over the conductor by dual extrusion using sophisticated machinery.
- » The wires are subjected to High Voltage Spark Testing to ensure quality.

### LFHR FRLS ELECTRICAL WIRES:

### (LEAD FREE HEAT RESISTANT FLAME RETARDANT LOW SMOKE)

- » In addition to the basic properties of LF FR; LFHR FRLS wires have toxic fumes suppressing properties.
- » Emit very little smoke and gas aiding easy evacuation in case of a fire.

### LFHR ZHLS ELECTRICAL WIRES: (LEAD FREE HEAT RESISTANT ZERO HALOGEN LOW SMOKE)

- » Wires manufactured using the specially-formulated insulation material from the hydrocarbon family of insulants which contain ZERO HALOGEN.
- » Ensure the visibility in the rare case of a fire.
- » People trapped can breathe and be rescued faster.

### **APPLICATIONS:**

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needs to be retarded.

Ideal for concealed and conduit wiring in high-rise buildings like hotels, hospitals, factories, commercial or residential complexes.

### **APPLICATIONS:**

Ideal for enclosed spaces like shopping malls, metro stations, sports stadium, schools, high safety and security complexes like nuclear power plants and military installations.

Designed for use in fire situations where

the spread of flames along a cable route

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TOR AREA	L SS OF INSULATION	/IRE/ DIA OF TOR	M OVERALL DIAMETER	TOR ICE MAX	CURREN # 2 C/ SINGLE	T RATING ABLES PHASE	AS PER SPECIFICATION
CONDUC	NOMINA	NO. OF M CONDUC	MAXIMUI	CONDUC RESISTAN AT 20° C	CASING	CONCEALED	
Sq.mm	(mm)	(mm)	(mm)	Ohm/km	(Amps)	(Amps )	
1.00	0.7	14/0.3	3.2	18.10	14	13	Conductor Class 2 of IS 8130 : 1984 as per amendment no. 3
1.50	0.7	22/0.3	3.4	12.10	18	16	Conductor Class 2 of IS 8130 : 1984
2.50	0.7	50/0.25	4.1	7.98	24	20	Conductor Class 5 of IS 8130 : 1984
4.00	0.8	56/0.3	4.8	4.95	32	26	Conductor Class 5 of IS 8130 : 1984
6.00	0.8	84/0.3	5.6	3.30	42	35	Conductor Class 5 of IS 8130 : 1984

# As per IS 3961 (Part V) - 1968 ## For guidance only BIS license No. : CML2044565 According to Class- 2 of IS 8130 : 1984, According to Class 5 of IS 8130 : 1984 Special colours on order, standard coil length 90mtrs.

COMPARATIVE PROPERTIES OF PARAMOUNT WIRES	NORMAL PVC WIRES	HEAT RESISTANT (HR PVC)		FIRE RETARDANT (FR PVC)	FIRE RETARDANT LOW SMOKE (FRLS)	ZERO HALOGEN LOW SMOKE (ZHLS)
INSULATION MATERIAL	PVC	PVC		Special PVC	Special PVC	Special Polymer
INSULATION PROPERTY	Normal	Good		Good	Good	Very Good
TEMPERATURE RATING	70°C	85°€		70°C	70°C	85℃
THERMAL STABILITY	Normal	Good		Good	Good	Very Good
FLAME RETARDANCY	Good	Good		Very Good	Very Good	Excellent
SAFETY DURING BURNING	Average	Averag	e	Good	Good	Excellent
REQUIREMENT OF OXYGEN TO CATCH FIRE (% IN AIR)	> 21< 29	> 21 < 2	29	> 30	> 30	>32
TEMPERATURE REQUIREMENT TO CATCH FIRE (WITH 21 % OXYGEN )	Room Temperature	Room Temperat	ure	> 250°C	> 250°C	> 300°C
VISIBILITY DURING CABLE BURNING (%)	< 20	< 20		< 35	> 40	> 80
RELEASE OF HALOGEN GAS DURING BURNING	Normal	Norma	1	Normal	Normal	Less than 1% of cable weight
ABRASION RESISTANCE DURING INSTALLATION	Good	Good		Good	Good	Good

### FLEXIBLE CABLES

### SINGLE CORE FLEXIBLE CABLES

- » Cost-effective.
- » Color coding apart from the regular ones (Red/ Yellow/Blue/Black/ Green)can be provided on request subject to economical run.

### **APPLICATIONS:**

The flexible single core wire could be a good solution for any locations where the environment or corrosion could cause damage to the wiring.



SKIN COLOR PVC MULTISTRAND FLEXIBLE COPPER CONDUCTOR NATURAL PVC

CONDUCTOR AREA	NOMINAL THICKNESS OF INSULATION	NO. OF WIRE/ DIA OF CONDUCTOR	MAXIMUM OVERALL DIAMETER	CONDUCTOR RESISTANCE PER KM AT 20° C MAXIMUM	CURRENT CARRYING CAPACITY 2 CABLES SINGLE PHASE UNENCLOSED CLIPPED DIRECTLY TO A SURFACE	AS PER SPECIFICATIONS
Sq.mm	(mm)	(mm)	(mm)	Ohm/km	(Amps)	
0.50	0.6	16/0.2	2.60	39.00	6	Conductor Class 5 of IS 8130 : 1984
0.75	0.6	24/0.2	2.80	26.00	10	Conductor Class 5 of IS 8130 : 1984
1.0	0.6	32/0.2	3.00	19.50	14	Conductor Class 5 of IS 8130 : 1984
1.5	0.6	30/0.25	3.40	13.30	16	Conductor Class 5 of IS 8130 : 1984
2.5	0.7	50/0.25	4.10	7.98	26	Conductor Class 5 of IS 8130 : 1984
4.0	0.8	56/0.3	4.80	4.95	35	Conductor Class 5 of IS 8130 : 1984
6.0	0.8	84/0.3	5.30	3.30	44	Conductor Class 5 of IS 8130 : 1984
10.0	1.0	140/0.3	7.00	1.91	61	Conductor Class 5 of IS 8130 : 1984
16.0	1.0	126/0.4	8.10	1.21	82	Conductor Class 5 of IS 8130 : 1984
25.0	1.2	196/0.4	10.20	0.780	103	Conductor Class 5 of IS 8130 : 1984
35.0	1.2	276/0.4	11.70	0.554	132	Conductor Class 5 of IS 8130 : 1984
50.0	1.4	396/0.4	13.90	0.386	174	Conductor Class 5 of IS 8130 : 1984
70.0	1.4	361/0.5	16.00	0.272	256	Conductor Class 5 of IS 8130 : 1984
95.0	1.6	475/0.5	18.20	0.206	304	Conductor Class 5 of IS 8130 : 1984
120.0	1.6	608/0.5	20.20	0.161	359	Conductor Class 5 of IS 8130 : 1984
140.0	1.8	750/0.5	22.50	0.129	406	Conductor Class 5 of IS 8130 : 1984
185.0	2.0	925/0.5	24.90	0.106	466	Conductor Class 5 of IS 8130 : 1984
240.0	2.2	1221/0.5	28.40	0.080	550	Conductor Class 5 of IS 8130 : 1984

The number and diameter of conductor strands are for reference only.

Conductors resistance as per IS: 8130 is the governing criteria. Comply with IS 694: 2010





- » Insulation done with a specially formulated PVC compound of high insulation resistance & dielectric strength.
- » Sheathing done with a specially formulated PVC compound having high oxygen and temperature index which eases stripping and helps withstand mechanical abrasion while in use.

### **APPLICATIONS:**

Wide range of applications in machinery of any industry, tools, appliances and control panels.

	AREA SQ. MM	٨	0.5	0.75	1.0	1.5	2.5	4.0	6.0	10.0	16.0	25.0	35.0	50.0	
NDUCTOR	NO. & SIZE OF WIRE (NOM). NO/MM		16/.2	24/.2	32/.2	30/.25 or 48/.2	50/.25 or 80/.2	56/.3	84/.3	80/.4 or 140/.3	126/.4	196/.4	276/.4	396/.4	
ŭ	IANCE © 20° RENT VG DC AC	Ohms/ km	39.0	26.0	19.5	13.3	7.98	4.95	3.3	1.91	1.21	0.78	0.554	0.386	
	RESIS (MAX C, CUI RATII OR	Amps	4	7	12	15	20	27	35	45	62	80	102	138	
INSULATION	THICKNESS (NOM.)	mm	0.6	0.6	0.6	0.6	0.7	0.8	0.8	1.0	1.0	1.2	1.2	1.4	
SINGLE CORE UN- SHEATHED	OVERALL DIAMETER (APPROX)	mm	2.00	2.30	2.5	2.85	3.45	4.00	4.5	6.0	7.1	8.9	10.0	12.0	
SINGLE	SHEATH THICKNESS (NOM.)	mm	0.9	0.9	0.9	0.9	1.0	1.0							
CORE SHEATHED	OVERALL DIAMETER MM( MAX.)	mm	4.3	4.5	4.7	5.4	6.2	6.8							
TWIN FLAT	OVERALL WIDTH (MAX.)	mm	5.2	5.6	6.0	6.6	8.0	9.6							
SHEATHED	OVERALL HEIGHT (MAX.)	mm	2.6	2.8	3.0	3.3	4.0	4.8							
2 6005	SHEATH THICKNESS (NOM.)	mm	0.9	0.9	0.9	0.9	1.0	1.0							
2 CORE	OVERALL DIAMETER (MAX.)	mm	6.9	7.3	7.6	8.9	10.3	11.6			A	CO 4 - 201	0		
2 CODE	SHEATH THICKNESS (NOM.)	mm	0.9	0.9	0.9	0.9	1.0	1.0	As per IS 694 : 2010						
SCORE	OVERALL DIAMETER (MAX.)	mm	7.3	7.7	8.1	9.4	10.9	12.4	2.4						
A CODE	SHEATH THICKNESS (NOM.)	mm	0.9	0.9	0.9	1.0	1.0	1.0							
4 CORE	OVERALL DIAMETER (MAX.)	mm	8.0	8.4	8.8	10.4	12.0	13.6							
E CODE	SHEATH THICKNESS (NOM.)	mm	0.9	0.9	1.0	1.0	1.0	1.1							
SCORE	OVERALL DIAMETER (MAX.)	mm	8.7	9.2	9.6	11.4	13.2	15.3							

Note : The conductor given above is indicative only and will be such that all requirements of strand diameter and conductor resistance as per IS : 694 and IS : 8130 are met

CORES	AREA SQ MM	0.5	0.75	1.0	1.5	2.5
e	Sheath Thickness (Nom.)	1.9	1.0	1.0	1.0	1.1
0	Overall Diameter (max.)	9.5	10.0	10.5	12.4	12.9
7	Sheath Thickness (Nom.)	0.9	1.0	1.0	1.0	1.1
· ·	Overall Diameter (max.)	9.5	10	10.5	12.4	14.5
o	Sheath Thickness (Nom.)	1.0	1.0	1.0	1.1	1.2
0	Overall Diameter (max.)	11.1	11.8	12.4	14.7	17.3
10	Sheath Thickness (Nom.)	1.0	1.1	1.1	1.1	1.3
10	Overall Diameter (max.)	12.0	12.7	13.4	16.0	18.7
13	Sheath Thickness (Nom.)	1.0	1.1	1.1	1.1	1.3
12	Overall Diameter (max.)	12.4	13.1	13.9	16.5	19.4
14	Sheath Thickness (Nom.)	1.1	1.1	1.1	1.2	1.3
14	Overall Diameter (max.)	13.1	13.8	14.6	17.4	20.5
16	Sheath Thickness (Nom.)	1.1	1.2	1.2	1.2	1.4
10	Overall Diameter (max.)	13.8	14.6	15.4	18.4	21.7
10	Sheath Thickness (Nom.)	1.1	1.2	1.3	1.3	1.4
19	Overall Diameter (max.)	14.6	15.4	16.3	19.5	23.3

	Area Sq. mn	6.0	10.0	16.0	25.0	35.0	50.0	70.0	95.0	120.0		
Conductor	No. & Size of wire(Nom).	No/ mm	84/.3	140/.3 or 80/.4	126/.4	196/.4	276/.4	396/.4	361/.5	475/.5	608/.5	
	Resistance (Max)@ 20°C, Current Rating DC or AC	Ohms/ km	3.3	1.91	1.21	0.78	0.554	0.386	0.272	0.206	0.161	
		Amps	31	42	57	72	20	27	165	200	225	
	Thickness	mm	0.8	1.0	1.0	1.2	1.2	1.4				
Insulation 3 core	Sheath Thickness (Nom)	mm	1.2	1.4	1.4	1.5	1.6	2.0				
	O.D (max.)	mm	13.8	17.69	20.6	25.6	29.3	34.6	As	As per IS : 694		
4 Core	Sheath Thickness (Nom)	mm	1.2	1.4	1.4	1.6	1.7	2.0				
	O.D (max.)	mm	15.47	19.5	23.0	28.5	32.7	38.6				

ТҮРЕ	CORE	SHEATH		
Single Core Unsheathed	Red, Yellow, Blue, Black, White & Grey	Black/ Grey		
Single Core Sheathed	Black	-		
Twin Twisted	Red & Black	Black/ Grey		
Twin Flat Sheathed	Red & Black	Black/ Grey		
2 Core Round Sheathed	Red & Black	Black/ Grey		
3 Core Round Sheathed	Red, yellow, blue	Black/ Grey		
4 Core Round Sheathed	Red, Yellow, Blue, Black	Black/ Grey		
5 Core Round Sheathed	Red , Yellow, Blue, Black & Grey	Black/ Grey		

3 & 4 CORES For Voltage Grade Up-to 1100 Volts

### SUBMERSIBLE CABLES



- » High quality, highly durable, 3 core flat PVC insulated cables.
- » Provides uninterrupted water supply.
- » Not affected by water/oil/grease.

Now Paramount Cables also introduces XLPE for added advantage over PVC

### Designed Especially For Submersible Pumps

### XLPE SUBMERSIBLE CABLES

- » PVC insulation between cores for extra protection.
- » Cross-linked Poly Ethylene used instead of PVC.
- » Light weight, flexible and high corrosion resistance.
- » Environment friendly.
- » Higher current rating and overload capacity.



COPPER CONDUCTOR PVC INSULATION OF CORES (RED, YELLOW, BLUE) PVC SHEATH (BLACK)



PVC INSULATION BETWEEN CORES FOR EXTRA PROTECTION COPPER CONDUCTOR XLPE INSULATION OF CORES (*red*, *yellow*, *blue*) PVC SHEATH (*black*)

	INSUL	ATION		OVERALL D	IMENSIONS			
Nominal Area (sq.mm)	Number/ Dia of strands (mm)	Insulation Thickness (Nom.) mm	Core Dia (Nom.)	Width ( approx ) 'W' max.	Height ( approx ) 'H' max.	Conductor Resistance @ 20°C (Max) ) Ohms/km	Current carrying capacity at 40°C	
Sq.mm	mm	mm	mm	mm	mm	Ohm/km	Amps	
1.5	22/0.30	0.6	2.8	12.0	5.6	12.10	14	
2.5	36/0.30	0.7	3.5	13.0	6.2	7.41	19	
4.0	56/0.30	0.8	4.0	15.3	7.1	4.95	26	
6.0	84/0.30	1.0	4.5	19.2	8.4	3.30	31	
10.0	140/0.30	1.0	6.0	24.2	10.4	1.91	42	
16.0	126/0.40	1.0	7.1	29.0	12.4	1.21	57	

Note : Available is 500 + 5 % metres packing in drums. Also available in 100 metres packing on request. The number and diameter of conductor strands are for reference only Conductor resistance as per IS : 8130 is the governing criteria Conductor shall be of class II R V as per IS 8130

CONDUCTOR		ΞwΞ	s E	OVERALL D	IMENSIONS	29 -	
Nominal Area (sq.mm)	Number/ Dia of strands (mm)	lnsulatio Thicknes (Nom.) m	Sheath Thicknes (Nom.) m	Width ( approx ) 'W' mm	Height ( approx ) 'H' mm	Conduct Resistano @ 20°C (Max) Ohms/kn	Current carrying capacity
1.5	22/0.30	0.6	0.9	11.0	5.0	12.10	24
2.5	36/0.30	0.7	1.0	13.6	6.0	7.41	30
4.0	56/0.30	0.8	1.0	15.6	6.5	4.95	37
6.0	84/0.30	0.8	1.1	17.8	7.4	3.30	46
10.0	140/0.30	1.0	1.4	22.5	9.3	1.91	66

As per IS 694

**XLPE CABLES** 



### SOLAR CABLES

Due to rapid depletion of conventional fossil fuels, global focus today has shifted on the development and harnessing of renewable sources of energy. India has more than 300 sunny days in a year, which makes harnessing solar energy through photo-voltaic (PV) system the most preferred green energy option here. In a PV system, the choice of solar cables is critical as a substandard cables can result in low efficiency and overheating that can in turn lead to cause of fire in extreme cases.

Paramount now offers electron-beam crosslinked solar cables. E-Beam irradiation is a process in which the polymer is exposed to an highly charged stream of electrons that creates crosslinking between the molecules. This cross-linking significantly improves thermal, mechanical and chemical properties of the polymer (i.e. insulation and sheathing materials).



SIZE	CONDUCTOR	INSULATION THICKNESS	SHEATH THICKNESS	CABLE OD	WEIGHT OF CABLE		MAX. DC RESISTANCE		
sq.mm	No./Dia of strand (mm) (nom.)	mm (minimum)	mm (mininum)	mm (Nominal)	Kg/ Km (Approx)	At 60°C in Air	Single Cables on Surface	2 Cables Adjacent on Surfaces	OF CONDUCTOR AT 20°C (OHM/KM)
2.5	50/0.25	0.5	0.5	4.2	35	41	39	33	8.21
4	56/0.3	0.5	0.5	4.7	50	55	52	44	5.09
6	84/0.3	0.5	0.5	5.5	70	70	67	57	3.39
10	80/0.4	0.5	0.5	6.5	110	98	93	79	1.95
16	126/0.4	0.5	0.5	8.3	170	132	125	107	1.24
25	196/0.4	0.5	0.5	11	285	176	167	142	0.795
35	276/0.4	0.5	0.5	12	385	218	207	176	0.565
50	396/0.4	0.8	1.0	14	535	276	262	221	0.393
70	360/0.5	0.9	1.0	16	735	347	330	278	0.277
95	475/0.5	0.9	1.1	18	945	416	395	333	0.21

E beam irradiated XLPO has following enhanced features over high temperature cross-linking:

3



UV and ozone resistant, improved weather resistance to work in difficult weather conditions.

### 2

Enhanced oil and chemical resistance, crack resistance.

Long-lasting cables Last 30 years, even under tough external conditions.



temperature

max 120°C.

minimum -40°C to

5

Halogen Free, improved flammability properties.

CONSTRUCTION

Voltage Rating	U/U = 600/1000 V AC, 1000/1800 V DC
Test Voltage	6.5 KV 50 Hz or 15 KV DC for 5 min
Temperature Rating	40°C up to +120°C
AmbientTemperature	-40°C up to +90°C
Bending Radius	>4xØ (Cable OD)
Oil & Chemical resistance	IEC 60811-1
Max. Short circuit Temp	250°C(for 5 sec)



PARAMOUNT SOLAR CABLES

### SHEATH

Extruded cross linked Halogen free Polyolefin thermosetting sheath

### INSULATION

Extruded cross linked Halogen free Ployolefin thermosetting insulation

per IEC – 60228





### COAXIAL CABLES rg6 & rg11

The RG Cable has come a long way and evolved in significance since its days of initial use. Used extensively in cable TV and computer networking operations, Paramount Coaxial Cables are high quality and manufactured with the best raw materials. Our RG cables are secure, fire retardant, fire-resistant, lead-free and non-toxic.

RG Coaxial Cables are widely used in Telecom projects as well as daily civil works. These cables are electrical copperbased wire cables with inner conductors surrounded by a tubular insulating layer then wrapped together by a metallic shield and often a synthetic outer jacket.



### **APPLICATIONS:**

- Our cables can be used for effective transmission solutions for Telecom systems such as Satellite communication, Marine, Mobile communication, the systems of AM, FM, Radar Communication, and Video data transmission etc.
- » RG6 Coaxial Cables are used for Baseband with near signal transmission distance, mostly used to transmit camera data and connect Indoor Television Equipment.
- » RG11 Coaxial Cables are used for Wide Broadband with far signal transmission distance, often used as the main cable line in transmitting observing camera data, Cable Television, etc.

### FEATURES:

- » Thin, flexible and designed to minimize static.
- » Superior protection from interference.
- » A coaxial has a data rate of 600 Mbps in digital telephone networks.
- » A single coaxial network can carry about 10,000 voice signals in analog telephone networks.



	PARAMETER	RG6	RG11
А	CONSTRUCTION		
1	Inner Construction	Solid Bare Copper	Solid Bare Copper
2	Nominal Diameter (mm)	1.02	1.63
3	Dielectric	FOAM PE	FOAM PE
4	Nominal Diameter (mm)	4.57	7.11
5	Outer conductor First	Bonded Al Tape	Bonded Al Tape
6	Outer conductor Second	Al Braid	Al Braid
7	Nominal Coverage (%)	60	60
8	Jacket	PVC (Black)	PVC (Black)
9	Nominal Diameter (mm)	7	10
10	Bending radius, Minimum (mm)	65	75
В	ELECTRICAL		
1	Inner Conductor Maximum Resistance (Ohm/100 m) at 20°C	2.13	0.84
2	Nominal Capacitance (pf/mtr.)	53	53
3	Nominal Impedance (Ohm)	75	75
4	Nominal Velocity Ratio (%)	85	85
с	ATTENUATION AT 25°C		
	FREQUENCY MHz	dB/100m	dB/100m
1	55	1.95	2.82
2	83	6.20	3.87
3	187	9.15	5.74
4	211	9.50	6.23
5	250	10.50	6.72
6	300	11.50	7.38
7	350	12.45	7.94
8	400	13.30	8.53
9	450	14.35	9.02
10	500	14.95	9.51
11	550	15.70	9.92

### TELEPHONE SWITCH BOARD CABLES

### APPLICATIONS

These cables are used for Internal wiring in telephone exchange, bay-to-bay wiring, equipment to MDF wiring etc. and in subscriber offices in large building.

### FEATURES

- » Available in standard conductor sizes of 0.4mm, 0.5mm & 0.6mm diameter.
- » Available in 1 Pair to 128 Pair & more if required.
- » Meets the flammability test requirement as per IEC 332 (Part-1)
- » TEC approved cable as per GR/WIR-06/03 Mar 2002

### ENVIRONMENTAL PROPERTIES

Operating Temperature : -20°C to + 75°C Flameability : IEC 332 (Part 1)

### STANDARD LENGTH & PACKING

As per customer requirement. wound & packed in wooden drums / coils / spools as per size and standard length.



### **ELECTRICAL CHARACTERISTICS**

Conductor Resistance 0.4mm	Max. 143 Ω/Km
Conductor Resistance 0.5mm	Max 92.2 Ω/Km
Conductor Resistance 0.6mm	Max 64.0 Ω/Km
Capacitance Unbalance (Pair to Pair)	Max. 230 pF/Km
Insulation Resistance at 50°C	Min. 50 M $\Omega$ Km
Dielectric Strength	3.0 KV DC, 1 Min

Diam Conduc	eter of tor (mm)	Maximum Resistance of Conductor at 20 ° C	Conductor Elongation (Min)	Radial thickness of conductor insulation	Maximum external diam- eter of insulated conductor
Nom.	Min.	Ohm/km	%	mm (+0.05, -0.00)	mm
0.40mm	0.39mm	143	15	0.1 to 0.2	0.9
0.50mm	0.49mm	92.2	15	0.2	1
0.60mm	0.59mm	64	15	0.2	1



Designed with precision our CCTV cables are one of the most advanced cable systems. Manufactured in two variants '4+1' and '3+1' CCTV cables to provide lossless picture quality.

Flexible, safe, secure, and delivering high-quality performance our CCTV Cables can be used in multiple applications for a smooth and long lasting operation.



S. No.	Particular	3+1 CCTV	4+1 CCTV
	CO	-AXIAL CABLE	
	Conductor		
1	Material	Annealed Bare Copper	Annealed Bare Copper
	No. of Wire/ Diameter of wire	$0.80 \pm 0.002$	$0.80 \pm 0.002$
	Insulation		
2	Material	Gas Injected Polyethylene	Gas Injected Polyethylene
2	Nominal Thickness of Insulation	1.30 mm	1.30 mm
	Diameter of Insulation	$3.50 \pm 0.20$	$3.50 \pm 0.20$
	Overall Shielded (Braided)		
2	Material	Al. Foil - 100%	Al. Foil - 100%
, , , , , , , , , , , , , , , , , , ,	Material	Alum. Alloy	Alum. Alloy
	Coverage	55%	55%
4	Flooding Compound	Petroleum Jelly	Petroleum Jelly
	0	UTER SHEATH	
4	Material	PVC	PVC
	Diameter of Sheath	5.50 mm ± 0.20 mm	$5.50 \text{ mm} \pm 0.20 \text{ mm}$
	Conductor		
2	Material	Annealed Tinned Copper	Annealed Tinned Copper
	No. of Wire/ Diameter of wire	14/0.13 ± 0.002	14/0.13 ± 0.002
	Insulation		
5	Material	PVC - Type - A	PVC - Type - A
3	Nominal Thickness of Insulation	0.3 mm	0.3 mm
	Diameter of Insulation	1.40 mm	1.40 mm
	F	INAL CABLE	
	Barrier Tape		
1	Thickness of Tape	25 Micron	25 Micron
	Coverage	100%	100%
	Outer Sheath		
2	Material	PVC - ST-1	PVC - ST-1
	Nominal Thickness of Sheath	0.90 mm	0.90 mm

### LAN CABLES

Smartly designed for computers to connect to the Internet, our LAN cables provide uninterrupted high-speed connectivity.

Paramount flexible LAN cables are fire retardant, safe & economical, and provide unmatched performance. Our LAN cables are manufactured with the best raw materials as per international standards and measures. These are available in CAT 6E & CAT 6 variants.

	CAT 6	CAT 6 E
Physical specification		
Conductor	23 AWG Annealed bare solid copper	23 AWG Annealed bare solid copper
Insulation	High Density Polyethylene	High Density Polyethylene
	Pair 1 : White – Blue	Pair 1 : White – Blue
Care Calaur	Pair 2: White - Orange	Pair 2: White - Orange
Core Colour	Pair 3 White : Green	Pair 3 White : Green
	Pair 4 White : Brown	Pair 4 White : Brown
Sheath:	Fire Retardant PVC Compound (FR PVC)	Fire Retardant PVC Compound
Seperator	-	Star Shaped
Approx Cable OD	6.5 mm	6.8 mm
Sheath Color	Yellow	Green
Operating Environment:	Indoor	Indoor
Flame rating	75° C as per vertical tray flame (Test as per UL 1685)	75° C as per vertical tray flame (Test as per UL 1685)
Electrical Performance	@300 MHz	@600 MHz
Standards	TIA/ EIA 568 B.2-1	TIA/ EIA 568 B.2-1
Impedance	100 +/- 15 ohm	100 +/- 15 ohm
Velocity of propagation	: 62.10% min. @ 250 MHz	62.10% min. @ 250 MHz
Propagation Delay	536 ns/ 100 mtrs. max @ 20°C @ 250 MHz	536 ns/ 100 mtrs. max @ 20° C @ 250 Mhz
Delay Skew	45 ns / 100 mtrs. max @ 20°C for 1 MHz ~ 250 MHz	45 ns / 100 mtrs. max @ 20°C for 1 Mhz ~ 250 MHz
DC Resistance:	9.38 ohm / 100 mtrs. max. @ 20°C	9.38 ohm / 100 mtrs. max. @ 20°C
Mutual Capacitance:	5.60 nF / 100 mtrs. max.	5.60 nF / 100 mtrs. max.





### **CROSS SECTION CAT 6E CABLES**





z) LAN CABLE CATEGORY 6 UNSHIELDED TWISTED PAIR (UTP) (300 MH

Fre- quency (MHz)	Atten (M at 2 dB/1	uation AX) 20° C 00 m	NEXT (d	(MIN) B)	PS NEX (d	T (MIN) B)	ACR NE) (d	KT (MIN) B)	ACR P (M) (d)	SNEXT IN) B)	ELFEX (dB/1	T (MIN) 00 m)	PS ELFE) (dB/1	XT (MIN) 00 m)	RETURI (MI (dl	N LOSS (N) B)
	Spec.	Typical	Spec.	Typical	Spec.	Typical	Spec.	Typical	Spec.	Typical	Spec.	Typical	Spec.	Typical	Spec.	Typical
1.00	2.03	1.98	74.30	76.81	72.30	75.54	72.28	74.79	70.28	73.56	67.80	70.75	64.80	67.75	20.00	42.27
4.00	3.78	3.70	65.27	67.78	63.27	66.51	61.49	64.00	59.49	62.81	55.76	58.71	52.76	55.71	23.01	38.05
8.00	5.32	5.20	60.75	63.27	58.75	62.00	55.43	57.95	53.43	56.80	49.74	52.69	46.74	49.69	24.52	35.95
10.00	5.95	5.82	59.30	61.81	57.30	60.54	53.35	55.86	51.35	54.73	47.80	50.75	44.80	47.75	25.00	35.27
16.00	7.55	7.38	56.24	58.75	54.24	57.48	48.68	51.20	46.68	50.10	43.72	46.67	40.72	43.67	25.00	33.84
20.00	8.47	8.28	54.78	57.30	52.78	56.03	46.31	48.83	44.31	47.75	41.78	44.73	38.78	41.73	25.00	33.16
25.00	9.51	9.29	53.33	55.85	51.33	54.58	43.83	46.34	41.83	45.28	39.84	42.79	36.84	39.79	24.17	32.48
31.25	10.67	10.43	51.88	54.39	49.88	53.12	41.20	43.72	39.20	42.69	37.90	40.86	34.90	37.86	23.33	31.80
62.50	15.38	15.04	47.36	49.88	45.36	48.61	31.98	34.49	29.98	33.56	31.88	34.83	28.88	31.83	20.74	29.70
100.00	19.80	19.37	44.30	46.81	42.30	45.54	24.50	27.01	22.50	26.17	27.80	30.75	24.80	27.75	18.99	28.27
110.00	20.85	20.40	43.68	46.19	41.68	44.92	22.83	25.34	20.83	24.52	26.97	29.92	23.97	26.92	18.63	27.98
120.00	21.86	21.40	43.11	45.63	41.11	44.36	21.25	23.76	19.25	22.96	26.22	29.17	23.22	26.17	18.31	27.71
140.00	23.79	23.28	42.11	44.62	40.11	43.35	18.32	20.83	16.32	20.07	24.88	27.83	21.88	24.83	17.73	27.24
155.00	25.16	24.63	41.45	43.96	39.45	42.69	16.28	18.80	14.28	18.06	23.99	26.95	20.99	23.95	17.35	26.93
175.00	26.91	26.34	40.65	43.17	38.65	41.90	13.75	16.26	11.75	15.56	22.94	25.89	19.94	22.89	16.90	26.57
200.00	28.98	28.38	39.78	42.30	37.78	41.03	10.80	13.32	8.80	12.65	21.78	24.73	18.78	21.73	16.40	26.16
210.00	29.78	29.16	39.47	41.98	37.47	40.71	9.68	12.20	7.68	11.55	21.36	24.31	18.36	21.31	16.22	26.01
220.00	30.57	29.94	39.16	41.68	37.16	40.41	8.59	11.11	6.59	10.47	20.95	23.90	17.95	20.90	16.04	25.87
230.00	31.34	30.69	38.87	41.39	36.87	40.12	7.53	10.05	5.53	9.42	20.57	23.52	17.57	20.52	15.88	25.74
240.00	32.10	31.44	38.60	41.11	36.60	39.84	6.49	9.01	4.49	8.40	20.20	23.15	17.20	20.15	15.72	25.61
250.00	32.85	32.17	38.33	40.85	36.33	39.58	5.48	8.00	3.48	7.40	19.84	22.79	16.84	19.79	15.57	25.48
300.00	36.43	35.69	37.14	39.66	35.14	38.39	0.72	3.23	,	2.70	18.26	21.21	15.26	18.21	14.89	21.93

# CATEGORY 6 UNSHIELDEDTWISTED PAIR (UTP) (600 MHz) LAN CABLE

quency at 20° (MHz) dB/100	Spec. 1	<b>1.00</b> 2.03	<b>4.00</b> 3.78	<b>8.00</b> 5.32	<b>10.00</b> 5.95	<b>16.00</b> 7.55	<b>20.00</b> 8.47	<b>25.00</b> 9.51	<b>31.25</b> 10.67	<b>62.50</b> 15.38	<b>100.00</b> 19.80	<b>110.00</b> 20.85	<b>120.00</b> 21.86	<b>140.00</b> 23.79	<b>155.00</b> 25.16	<b>175.00</b> 26.91	<b>200.00</b> 28.98	<b>210.00</b> 29.78	<b>220.00</b> 30.57	<b>230.00</b> 31.34	<b>240.00</b> 32.10	<b>250.00</b> 32.85	300 00 36 43	JU0.00	<b>350.00</b> 39.79	<b>350.00</b> 39.79 <b>400.00</b> 42.97	350.00     39.79       400.00     42.97       450.00     46.01	350.00 39.79   400.00 42.97   450.00 46.01   500.00 48.94	350.00 39.79   400.00 42.97   450.00 46.01   500.00 48.94   550.00 51.76
З О	Typical	1.98	3.70	5.20	5.82	7.38	8.28	9.29	10.43	15.04	19.37	20.40	21.40	23.28	24.63	26.34	28.38	29.16	29.94	30.69	31.44	32.17	35.69	38.98		42.11	42.11 45.10	42.11 45.10 47.98	42.11 45.10 47.98 50.76
INEX I	Spec.	74.30	65.27	60.75	59.30	56.24	54.78	53.33	51.88	47.36	44.30	43.68	43.11	42.11	41.45	40.65	39.78	39.47	39.16	38.87	38.60	38.33	37.14	36.14	35.27	34.50		33.82	33.82 33.19
3)	Typical	80.08	71.05	66.54	65.08	62.02	60.57	59.12	57.66	53.15	50.08	49.46	48.90	47.89	47.23	46.44	45.57	45.25	44.95	44.66	44.38	44.12	42.93	41.92	41.05	40.29	39.60		38.98
(dl	Spec.	72.30	63.27	58.75	57.30	54.24	52.78	51.33	49.88	45.36	42.30	41.68	41.11	40.11	39.45	38.65	37.78	37.47	37.16	36.87	36.60	36.33	35.14	34.14	33.27	32.50	31.82		31.19
B)	Typical	77.88	68.85	64.34	62.88	59.82	58.37	56.92	55.46	50.95	47.88	47.26	46.70	45.69	45.03	44.24	43.37	43.05	42.75	42.46	42.18	41.92	40.73	39.72	38.85	38.09	37.40		36./8
(d)	Spec.	72.28	61.49	55.43	53.35	48.68	46.31	43.83	41.20	31.98	24.50	22.83	21.25	18.32	16.28	13.75	10.80	9.68	8.59	7.53	6.49	5.48	0.72	I.	I	I.	I		ı
B)	Typical	78.06	67.27	61.22	59.13	54.47	52.10	49.61	46.99	37.76	30.28	28.61	27.03	24.10	22.07	19.53	16.59	15.47	14.38	13.32	12.28	11.27	6.50	2.14	1	ı.	1	I	
per l'altra	Spec.	70.28	59.49	53.43	51.35	46.68	44.31	41.83	39.20	29.98	22.50	20.83	19.25	16.32	14.28	11.75	8.80	7.68	6.59	5.53	4.49	3.48	ı.	i.	1	i.	1	I.	
B)	Typical	75.90	65.15	59.14	57.07	52.44	50.09	47.62	45.03	35.90	28.51	26.86	25.30	22.41	20.40	17.90	14.99	13.89	12.81	11.76	10.74	9.74	5.04	0.74	I	I.	I	i.	
(dB/1)	Spec.	67.80	55.76	49.74	47.80	43.72	41.78	39.84	37.90	31.88	27.80	26.97	26.22	24.88	23.99	22.94	21.78	21.36	20.95	20.57	20.20	19.84	18.26	16.92	15.76	14.74	13.82	12.99	
(IVIIV) 00 m)	Typical	70.75	58.71	52.69	50.75	46.67	44.73	42.79	40.86	34.83	30.75	29.92	29.17	27.83	26.95	25.89	24.73	24.31	23.90	23.52	23.15	22.79	21.21	19.87	18.71	17.69	16.77	15.95	
(dB/1	Spec.	64.80	52.76	46.74	44.80	40.72	38.78	36.84	34.90	28.88	24.80	23.97	23.22	21.88	20.99	19.94	18.78	18.36	17.95	17.57	17.20	16.84	15.26	13.92	12.76	11.74	10.82	9.99	
00 m)	Typical	67.75	55.71	49.69	47.75	43.67	41.73	39.79	37.86	31.83	27.75	26.92	26.17	24.83	23.95	22.89	21.73	21.31	20.90	20.52	20.15	19.79	18.21	16.87	15.71	14.69	13.77	12.95	
(d) (M)	Spec.	20.00	23.01	24.52	25.00	25.00	25.00	24.17	23.33	20.74	18.99	18.63	18.31	17.73	17.35	16.90	16.40	16.22	16.04	15.88	15.72	15.57	14.89	32.72	33.01	33.27	33.49	26.00	
۳S	Typical	42.27	38.05	35.95	35.27	33.84	33.16	32.48	31.80	29.70	28.27	27.98	27.71	27.24	26.93	26.57	26.16	26.01	25.87	25.74	25.61	25.48	21.93	21.46	21.05	20.69	20.37	20.08	

### SPEAKER CABLES

Speaker Cables are designed to connect between loudspeakers and audio amplifiers. Designed to be safe and reliable, Paramount audio cables give an undistorted output with very low dB loss.

Paramount Speaker Cables are widely used in modern construction such as malls, railway platforms, and high-rise buildings, etc.

Paramount Speaker cables are made from multi-wire, bright annealed flexible bare electrolytic grade copper conductor, and each core is easily identifiable with a different color. We ensure industry-standard procedures and safety norms to manufacture our cables. Our twin speaker cables are jacketed in a fire retardant PVC compound to keep you safe.

### PACKAGING

Transparent Polywrapping in 100 mtrs





### **CROSS SECTION SPEAKER CABLES**

COND	UCTOR		INSULATION								
Size (sq. mm)	Maximum Conductor Resistance at 20 °C Ω/ km (Ohm per km)	Thickness of Insulation (in mm)	Approx. Width (in mm)	Approx. Height (in mm)	Approx. Web Dims (W x H)						
0.50 sq.mm	39 Ω/km	0.60 mm	4.30 x 2.10 mm	4.30 x2.10 mm	4.30 x2.10 mm						
0.75 sq.mm	26 Ω/km	0.60 mm	4.60 x 2.28 mm	4.60 x 2.28 mm	4.60 x2.28 mm						
1.00 sq.mm	18.1 Ω/km	0.70 mm	5.40 x 2.70 mm	5.40 x 2.70 mm	5.40 x 2.70 mm						
1.50 sq.mm	12.1 Ω/km	0.80 mm	6.40 x 3.18 mm	6.40 x 3.18 mm	6.40 x 3.18 mm						





OTH	ER	HT & LT Power (UG & Aerial)	r Cables	Optical Fiber Cables
		Axle-Counter Cables for Rai	& Signaling Iways	Instrumentation Cables
Control Cables	PIJF Telecom Cables	Fire Survival Cables	Solar Cables	Various Special Cables



## PARAMOUNT COMMUNICATIONS LIMITED

### CORPORATE OFFICE

Paramount KH-433, Maulsari Ave, West End Greens, Rangpuri, New Delhi 110037 T: +91-11-45618900 E: pcl@paramountcables.com

### PLANTS:

DHARUHERA PLANT 37 Industrial Estate , Dharuhera District Rewari, Haryana 242692

T: +91-1274 2422351 F: +91-1274 242552 E: pcldw@paramountcables.com

> KHUSKHERA PLANT SP – 30 A, RIICO Industrial Area, Khushkhera, Karoli, District Alwar, Rajasthan 301707

T: +91-1493 513601/027 F: +91-1493 250222 E: pcck@paramountcables.com

### www.paramountcables.com