

Technical Catalogue

WIRES & CABLES

A
B
O
U
T
U
S

Founded in the year 1968, KUNDANCAB began its journey by manufacturing and marketing electrical cables. The company has over the period, witnessed exponential growth, driven by technical expertise, a diversified portfolio of high quality and innovative products, and the ability to respond on time to the changes in the market.

With over FIVE decades of experience in the cable industry, FYBROS offers unrivaled engineering expertise, which has been directed towards developing specialised products for a variety of sectors. We deliver high quality products and ensure regulatory compliances at all levels of the product development cycle from sourcing of raw material to design and manufacturing to packaging and delivery.

We manufacture various types of unparalleled quality Wires & Cables. Our range of wires & cables caters specific needs of clients meeting international quality standards.

Our-state-of-the-art manufacturing facility in Bhiwadi, Rajasthan is well equipped to meet the demands of the local market for housing wires and low voltage electric cables. We pride ourselves on our ability to identify and satisfy customer needs through development of innovative products and unique, cost effective cable solutions for a wide range of industries. Our extensive project experience make FYBROS the supplier of choice for cable projects in the residential and commercial sectors.

We are also committed to comply with all applicable environments, health & safety legislation and all requirements of interested parties. Our commitment to the nation is to produce the best in quality and to ensure awareness among employees, society, interested parties about environment protection, minimization of waste, wise use of energy, water and other natural resources.





**C
O
N
T
E
N
T
S**

FR CABLES	-----	1
FR-LSH CABLES	-----	2
UFFR CABLES	-----	3
ZHFR CABLES	-----	4
3 CORE FLAT XLPE CABLES	-----	5
3 CORE FLAT PVC CABLES	-----	6
SINGLE & MULTICORE CABLES	-----	7
VIR CABLES	-----	8
CO-AXIAL CABLES	-----	9
TELEPHONE AND SWITCHBOARD CABLES	-----	10
LT POWER CONTROL CABLES - PVC/XLPE INSULATED	-----	11
COMPUTER & LAN NETWORKING CABLES	-----	12
CCTV CABLES	-----	13

FR

Multistrand Single Core
Unsheathed Flexible
Industrial Cables

FYBROS introduces FR wires, multi-strand flexible FR PVC Insulated building wires with fire retardant properties. The conductor is insulated with a specially formulated Flame Retardant FR grade PVC Compound having high insulation resistance, oxygen, temperature index and dielectric strength which prevents the leakage of electric current. Suitable for use in surface mounted or embedded conduits or trunking. Also suitable for field protected installation in lighting fittings and inside appliances.



FR PROPERTIES

TEST	TESTING METHOD	SPECIFIED VALUE
CRITICAL OXYGEN INDEX	IS : 10810 PART 58	OXYGEN INDEX MINIMUM 29%
TEMPERATURE INDEX	IS : 10810 PART 64	MIN. TEMP INDEX 250°C AT 21% OXYGEN

Also meet requirements of Flammability test as per IS:694:2010

SINGLE CORE UNSHEATHED FLEXIBLE INDUSTRIAL CABLES IN VOLTAGE GRADE 1100 VOLTS

Nominal cross sectional area of conductor	Number/Nom. Dia of Wire	Nominal Thickness of Insulation	Overall Diameter (Approx)	Current carrying capacity 2 cables, single phase#		Max. Resistance of Conductor per Km@20°C	IS:694 CM/L-8637693
				In conduit/ Trunking	Unenclosed clipped directly to surface or on cable tray		
Sq. mm	mm	mm	mm	Amps	Amps	Ohms.	
0.75	24/0.2**	0.6	2.3	6	7	26.0	
1.0	14/0.3*	0.7	2.7	11	12	18.10	
1.5	22/0.3*	0.7	3.1	13	16	12.10	
2.5	36/0.3*	0.8	3.7	18	22	7.41	
4.0	56/0.3**	0.8	4.1	24	29	4.95	
6.0	84/0.3**	0.8	4.7	31	37	3.30	

Supplied in 90 meters lengths in attractive cartoons
Standard Colours : Red, Yellow, Blue, Black, Green for earthing

*As per conductor Class 2 of IS:8130/2013. **As per conductor Class 5 of IS:8130/2013
Conform to IS 694/2010. ISI Licence number CM/L-8637693

SINGLE CORE UNSHEATHED FLEXIBLE INDUSTRIAL CABLE IN VOLTAGE GRADE 1100 V.

							IS:694 CM/L-8637693
10	80/0.4**	1.0	6.40	42	51	1.91	
16	126/0.4	1.0	7.60	57	68	1.21	
25	196/0.4	1.2	9.70	71	86	0.780	
35	276/0.4	1.2	10.60	91	110	0.554	
50	396/0.4	1.4	12.50	120	140	0.386	

Supplied in 90 meters lengths in Woven Bag & Cloth Packing.
Standard Colours : Red, Yellow, Blue, Black.
Longer length & other colors are available on request

**As per conductor Class 5 of IS:8130/2013
As per IS:3961 (Part V)-1968
Sample Card available on request. (1.0 to 6.0 sq. mm)



- MORE THAN 100% CONDUCTIVITY
- BUNCHING 100%
- FLAME RETARDANT



FR-LSH

Flame Retardant Low Smoke and Halogen Multistrand Single Core Unsheathed Flexible Industrial Cables

FR-LSH has special flame retardant, low smoke emitting and toxic fumes suppressing properties. The oxygen index of a Fybros Wires have 32% which increases its efficiency in fire fighting. In the case of fire, conventional PVC insulated wires give out thick black smoke and toxic fumes of hydrochloric acid gas. This impairs visibility and hampers rescue operations. Not only emits very little smoke and toxic gases, but also retrads the spreading of fire.

The conductor manufacture of Pure Electrolytic Grade, bright annealed bare copper having very low resistance with more than 100% conductivity which makes it an excellent conductor of electricity, thus sensuring low energy losses.



XTRA GARD FR-LSH PROPERTIES

TEST	TESTING METHOD	SPECIFIED VALUE FR-LSH
CRITICAL OXYGEN INDEX	IS : 10810 PART 58	OXYGEN INDEX MINIMUM 29%
TEMPERATURE INDEX	IS : 10810 PART 64	MIN. TEMP INDEX 250°C AT 21% OXYGEN
TEST FOR SMOKE DENSITY RATING	IS : 10810 PART 63	MINIMUM 40%
TEST FOR HALOGEN ACID GAS EVOLUTION	IS : 10810 PART 59	Hydrochloric acid gas released 20% max by weight

Also meet requirements of Flammability test as per IS:694:90

SINGLE CORE UNSHEATHED FLEXIBLE INDUSTRIAL CABLES IN VOLTAGE GRADE 1100 VOLTS



Nominal cross sectional area of conductor	Number/Nom. Dia of Wire	Nominal Thickness of Insulation	Overall Diameter (Approx)	Current carrying capacity 2 cables, single phase #		Max. Resistance of Conductor per Km@20°C
				In conduit/ Trunking	Unenclosed clipped directly to surface or on cable tray	
Sq. mm	mm	mm	mm	Amps	Amps	Ohms.
0.75	24/0.2**	0.6	2.3	6	7	26.0
1.0	14/0.3*	0.7	2.7	11	12	18.10
1.5	22/0.3*	0.7	3.1	13	16	12.10
2.5	36/0.3*	0.8	3.7	18	22	7.41
4.0	56/0.3**	0.8	4.1	24	29	4.95
6.0	84/0.3**	0.8	4.7	31	37	3.30
10.0	80/0.4**	1.0	5.8	42	51	1.91
16.0	126/0.4**	1.0	6.8	57	68	1.21

Conform to IS-694/2010. ISI Licence number CM/L-8637693
As per IS:3961 (Part V)-1968

* As per conductor Class 2 of IS:8130/2013
** As per conductor Class 5 of IS:8130/2013



UFFR

Ultra Flexible Flame Retardant (Multistrand)
Single Core Unsheathed Flexible Industrial Cable

With an increase in the number of electrical & electronic equipments being used today. More equipments get plugged into system than what it is designed to handle. This overloading leads to reduction of cable life and ultimately short circuit. Normal PVC cables are suitable for maximum operating temperature of 70°C.

- STANDARDS** : IS:694, BS:62131, IS:8130 & IS:5831.
- CONDUCTOR** : UFFR cables are made of highly Pure Electrolytic Grade bright annealed bare copper with more than 100% conductivity which makes it an excellent conductor of electricity thus helps in saving energy.
- INSULATION** : The cables, made with special formulated UFFR PVC compound, can withstand temperature 70°C compared to conventional wires that bear to 70°C under continuous usage. The new development makes possible the longer life for cables and ability to withstand fluctuations and emergency loads. With the production of this new breed of house wiring
- KEY APPLICATIONS** : For the wiring of all types of control panel, building, factories, relay racks, surface mounted or embedded conduits trunking. Home Gard wire is used by electrical contractors, electricians, municipalities and all major switch board manufacturers.
- PACKING** : Fybros Multistrand Wires up to 6 Sq. mm are supplied in 90 metre Length in attractive carton. Longer length available on request.
- COLORS** : Fybros Multistrand wires are available in five colors Red, Yellow, Blue, Black & Green. Other colors can be supplied on request. Subject minimum order quantity.
- MARKING** : The Cables are printed with generic making Fybros by KUNDANCAB UFFR.

UFFR PROPERTIES

TEST	TESTING METHOD	SPECIFIED VALUE
CRITICAL OXYGEN INDEX	IS : 10810 PART 58	OXYGEN INDEX MINIMUM 29%
TEMPERATURE INDEX	IS : 10810 PART 64	MIN. TEMP INDEX 250°C AT 21% OXYGEN



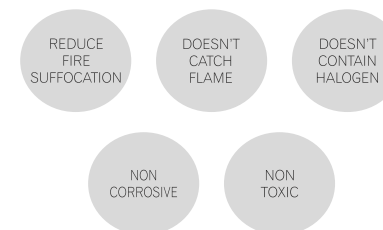
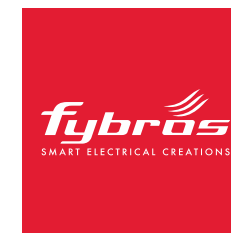
- SUPERIOR INSULATION RESISTANCE
- HIGH DIELECTRIC STRENGTH
- HIGHER CURRENT CARRYING CAPACITY



ZHFR

Zero Halogen Flame Retardant
Multistrand Single Core
Unsheathed Flexible
Industrial Cables

ZHFR (Zero Halogen Flame Retardant) Wiring cables are made with an imported specially formulated Non-PVC material which is a product of most advanced halogen free technology. It does not emit highly corrosive halogen acid gases /toxic fumes and there is almost nil smoke. In case of fire, the conventional wiring cables will produce toxic gases which are very harmful for the environment and will also hamper the rescue operations as the visibility becomes almost zero.



ADDITIONAL ZHFR PROPERTIES			A brief comparison of PVC Cables and ZHFR Cables is given below			
PROPERTIES	TEST METHOD	SPECIFIED VALUES	PROPERTIES	PVC	FRLS	ZHFR
Limited Oxygen Index	ASTM-D-2863	35%	Halogen Gas (mg/g)	>200	150	<0.5
Limited Temp. Index	ASTM-D-2863	>300°C	Corrosive Gas (ph)	1 - 2	2 - 3	6 - 0
Smoke Density (Light Absorption)	ASTM-D-2843	<10%	Smoke Density (Rating)	>70	50	<20
Acid Gas Generation	IEC - 60754 - 1	<0.5%	Usage Temperature (°C)	70	85	90
			Low Temperature (°C)	-20	-40	-50
			Dioxin	YES	YES	NO
			Toxic Halogen Gas	YES	YES	NO
			Lead	YES	YES	NO

SINGLE CORE UNSHEATHED 1100 VOLTS ZHFR INSULATED INDUSTRIAL WIRES WITH COPPER CONDUCTOR

Nominal cross sectional area of conductor	Number/Nom. Dia of Wire	Nominal Thickness of Insulation	Overall Diameter (Approx)	Current carrying capacity	Max. Resistance of Conductor per Km@20°C
Sq. mm	mm	mm	mm	Amps	Ohms.
1.0	14/0.3*	0.7	2.7	13	18.10
1.5	22/0.3*	0.7	3.1	16	12.10
2.5	36/0.3*	0.8	3.7	22	7.41
4.0	56/0.3**	0.8	4.1	29	4.95
6.0	84/0.3**	0.8	4.7	37	3.30
10.0	80/0.4**	1.0	6.0	51	1.91

Supplied in 90 meters lengths in attractive cartons and longer length in multiples of 90 metre in project packing.
Standard Colours : Red, Yellow, Blue, Black, Green for earthing

*As per conductor Class 2 of IS:8130/2013.
**As per conductor Class 5 of IS:8130/2013

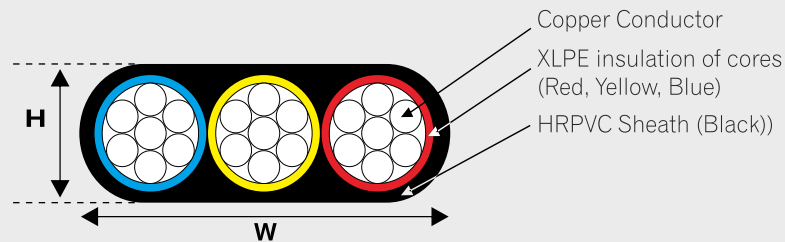


3-CORE FLAT XLPE INDUSTRIAL CABLES For Submersible Pump Motors

Submersible Cable is a specialized product to used for submersible pumps in deep well. The area of installation is physically restrictive environment is very hostile. The conductor is further insulated with thermoset type Cross Linked Polythene (XLPE) insulation with uniform thickness. The sheath with uniform thickness of Heat and Moisture Resistant type PVC (Grade ST2) compound formulated and manufactured in house, is extruded over these coloured cores in a flat formation. The colour of the sheath is black. The cables undergo stringent quality checks during raw materials, in process and final testing as per the laid down specification and the quality norms. The cables are available progressive sequential marking, company name, size & voltage



- Higher current rating
- Higher overload capacity
- Higher short circuit rating
- Lighter in weight and smaller bending radius
- Lower Di-electric constant and power factor
- Better impact, abrasion, corrosion resistance



3 CORE FLAT CABLES WITH COPPER CONDUCTOR XLPE INSULATION AND HR PVC SHEATH

S. No.	PARAMETERS	Size (Sq. mm)						
		2.5	4.0	6.0	10.0	16.0	25.0	35.0
1.	Conductor construction (No/mm)	36/0.3	56/0.3	84/0.3	140/0.3	226/0.3	354/0.3	495/0.3
2.	Conductor Resistance at 20°C (ohms/km) Max	7.41	4.95	3.3	1.91	1.21	0.780	0.554
3.	Insulation Thickness (mm) Nom	0.7	0.70	0.70	0.70	0.70	0.90	0.90
4.	Sheath Thickness (mm) Nom	1.0	1.0	1.1	1.2	1.3	1.5	1.6
5.	Overall Dimension Width (W)	12.7	14.9	16.9	20.3	23.8	29.6	33.6
	(mm) approx. Height (H)	6.0	6.6	7.4	9.1	10.4	12.9	14.4

The number of wires and its diameter in the conductor will be such as to satisfy requirement of the conductor resistance as per IS 8130:2013 Current Carrying Capacity (Amps)

S. No.	CABLE TYPE	Size (Sq. mm)						
		2.5	4.0	6.0	10.0	16.0	25.0	35.0
1.	PVC Insulation	18	26	31	42	57	72	90
2.	XLPE Insulation	30	37	46	66	85	113	139
	Ambient Temperature (Deg. C)	25	30	35	40	45	50	
	Factor	1.18	1.12	1.06	1.00	0.94	0.88	



3-CORE FLAT PVC INDUSTRIAL CABLES

For Submersible Pump Motors

These connecting cables are used to connect underwater submersible pump set with the supply line, agriculture, irrigation, domestic installation, outdoor application and power supply. Submersible Cable is a specialised product to used for submersible pumps in deep well. The area of installation is physically restrictive environment is very hostile. Fybros designed and manufacture keeping in mind factors to achieve the highest possible degree of reliability.



3 Core Flat Industrial Cables For Submersible Pump Motors, 1100 Voltage Grade

CONDUCTOR		INSULATION	SHEATH OVERALL DIMENSIONS (Max)			CONDUCTOR RESISTANCE @20°C (Max) ohms/km.	CURRENT CARRYING CAPACITY @ 40°C (Amp.)
Area (Nom.) Sq. mm	No. /size of Wires mm	Thickness (Nom.) mm	Thickness (Nom.) mm	Width "W" mm	Thickness "T" mm		
1.5	22/0.3*	0.6	0.90	12.00	5.60	12.10	14
2.5	36/0.3*	0.7	1.00	13.00	6.20	7.41	18
4.0	56/0.3**	0.8	1.00	15.30	7.10	4.95	26
6.0	84/0.3	0.8	1.1	19.20	8.40	3.30	31
10.0	140/0.3	1.0	1.40	24.20	10.40	1.91	42
16.0	101/0.45	1.0	1.40	29.00	12.4	1.21	57
25.0	158/0.45	1.2	2.00	36.50	15.70	0.780	72
35.0	220/0.45	1.2	2.00	40.50	17.20	0.554	90

Selection Guide for 3 Core Flat Cables

HP vs Current : The full load current for submersible pump motors, 3 phase, 50 cycles, 415-425V

HP	5.0	7.5	10.0	12.5	15.0	17.5	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0
Amp.	7.5	11.0	14.9	18.9	22.5	25.2	28.4	35.6	42.3	50.4	58.1	62.1	67.5	73.8	81.0	87.3	93.6	100.80	108.00

Derating Factors : Multiply the current carrying capacity of the cable by factors given below for various ambient temperatures.

Ambient Temperature	30	35	40	45	50	Note : ■ Supplied in 500 (±5%) meter packing on Bags and Drums. Can also supplied in 100 mtr., 300 mtr, 1000 mtr. packing on request.
Operating Factor	1.09	1.04	1.00	0.95	0.77	■ The strand diameter is nominal however, construction of conductor is design to satisfy the requirements of conductor resistance as per IS:8130:1984

* As per conductor Class 2 of IS:8130:2013
 ** As per conductor class 5 of IS:8130:2013



- TEMP RANGE -15°C to 70°C
- TEST VOLTAGE 3000 Volts
- 100% ANNEALING
- LONGER SERVICE LIFE
- MORE THAN 100% CONDUCTIVITY

SINGLE & MULTICORE

Round Flexible Industrial Cables

These cables are mostly used for wiring in machines, control panels, electric power supply, modern electric appliances and equipment.



SINGLE CORE/MULTICORE ROUND FLEXIBLE INDUSTRIAL Cables as per IS-694/2010 Voltage grade upto 1100 Volts.

IS-694



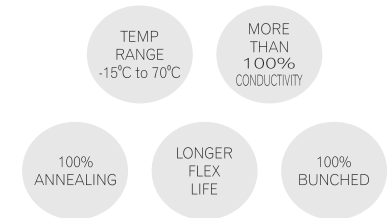
Conductor Area	No. & Size of each Strand	Thickness of PVC Insulation	Max DC Resist. at 20° C	Current Carrying Capacity	Thickness of PVC Outer Sheath (mm)			Approximate Overall Diameter (mm)		
					2 Core	3 Core	4 Core	2 Core	3 Core	4 Core
Sq.mm	Nos/Dia	mm	Ohm/Km	Amps	2 Core	3 Core	4 Core	2 Core	3 Core	4 Core
0.5	16/0.2	0.6	39	4	0.9	0.9	0.9	6.15	6.40	7.05
0.75	24/0.2	0.6	26	7	0.9	0.9	0.9	6.55	6.85	7.50
1	32/0.2	0.6	19.5	12	0.9	0.9	0.9	6.90	7.20	7.90
1.5	*30/0.25	0.6	13.3	15	0.9	0.9	1.0	7.45	7.80	8.80
2.5	**50/0.25	0.7	7.98	20	1.0	1.0	1.0	8.95	9.35	10.35
4	56/0.3	0.8	4.95	23	1.0	1.0	1.0	10.35	10.85	12.05
6	84/0.3	0.8	3.30	35	1.1	1.1	1.2	11.65	12.20	13.80
10	140/0.3	1.0	1.91	36	1.2	1.2	1.3	14.55	15.30	17.25
16	101/0.45	1.0	1.21	62	1.3	1.3	1.4	16.80	17.70	19.95
25	157/0.45	1.2	0.78	80	1.4	1.5	1.6	21.90	23.25	26.20
35	220/0.45	1.2	0.554	102	1.5	1.6	1.7	24.60	26.10	29.45
50	314/0.45	1.4	0.386	138	1.6	1.7	1.8	29.00	30.75	34.70

*This size can be supplied in 48/0.2 Construction.

The Number and diameter of conductor stands are for reference only.

The Conductor resistance as per IS : 8130 is the governing criteria.

The above data is approximate and subject to manufacturing tolerance



**This size can be supplied in 80/0.2 Construction.

VIR CABLES

PVC INSULATED UNSHEATHED

Solid Stranded Copper Wire

FYBROS PVC Insulated Unsheathed Single Core Wires manufactured with plain annealed copper conductor solid & stranded insulated with electric grade PVC compound conforming (Industrial Cables) conforming to IS : 694:2010 Voltage Grade 1100 Volts, The CIR wires & cables are suitable for fixed wiring, House / Domestic wiring / Project & Industrial Plants. etc.

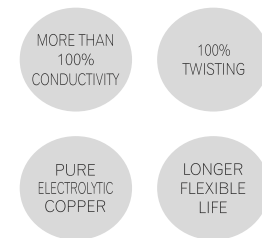


FYBROS Single Core Solid & Stranded Bright Annealed Copper Conductor PVC Insulated Unsheathed Wires Up to 1100 Volts Grade, as per IS-694/2010, with ISI mark

Nominal cross sectional area of conductor	No. of strand & Size of wire in	Nominal Thickness of Insulation in	Nominal Overall Dia (Max)	Max. Resistance of Conductor per Km@20°C	# Current rating 2 Cable Single Phase AC/DC
Sq. mm	mm	mm	mm	Ohms.	Amps
1.0	1/1.13	0.7	3.20	18.10	12
1.5	3/0.80	0.7	3.30	12.10	16
2.5	3/1.04	0.8	4.00	7.41	22
4.0	7/0.85	0.8	4.60	4.61	29
6.0	7/1.04	0.8	5.20	3.08	37
10.0	7/1.35	1.0	6.70	1.83	51
16.0	7/1.70	1.0	7.80	1.15	68
25.0	19/1.30	1.20	9.70	0.727	86
35.0	19/1.53	1.20	10.9	0.524	110
50.0	19/1.78	1.40	12.8	0.387	145
70.0	37/1.55	1.40	14.6	0.268	200
95.0	37/1.80	1.60	17.1	0.193	235
120.0	37/2.03	1.60	18.8	0.153	270

Supplied In 90 Meter Lengths In Carton, Woven Bag & Cloth Packing
Standard Colors : Red, Yellow, Blue, Black & Green

As per IS:3961 (Part V)-1968
Conform to IS 694/2010. ISI Licence number CM/L-8637693
Longer Length & other colors are available on request



TV DISH ANTENNA CO-AXIAL CABLES

Gas Injected Physical Foam
Jelly Flooded Industrial Cables

FYBROS Coaxial cable (or "coax") is the most common cable used for transmitting video signals. The name "coaxial" refers to the common axis of the two conductors. Coaxial cable also offers high bandwidth per channel and low noise & crosstalk which makes the medium of choice for delivering high-definition video to and within the home. Short coaxial cables are used to connect equipment, such as TVs, DVRs, VCRs or CATV



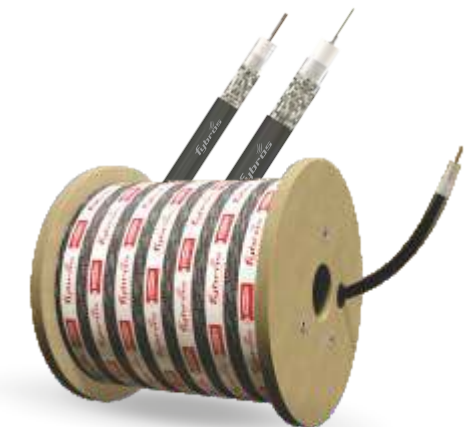
Specification / Construction

Components	RG-59 Stranded Shield		RG-6 Stranded Shield		RG-11 Stranded Shield	
	Inches	MM	Inches	MM	Inches	MM
Nominal Center Cond. Diameter	0.032	0.81	0.040	1.02	0.064	1.63
Nominal Diameter Over Dielectric	0.144	3.66	0.180	4.57	0.280	7.11
Nominal Diameter Over First Shield (Tape)	0.151	3.84	0.187	4.75	0.287	7.29
Nominal Diameter Over Jacket	0.240	6.20	0.272	7.00	0.395	10.00
Nominal Jacket Wall Thickness	0.032	0.81	0.030	0.76	0.042	1.07
Nominal Diameter of Steel Messenger	0.051 (Single)	1.30	0.051 (Single)	1.30	0.072 (Single)	1.83
	0.072 (Dual)	1.83	0.072 (Dual)	1.83	0.109 (Dual)	2.77
MECHANICAL CHARACTERISTICS						
Minimum Breaking	0.051		0.051		0.072	
Strength of Messenger	0.072		0.072		0.109	
ELECTRICAL CHARACTERISTICS						
Nominal Impedance	75 ohms		75 ohms		75 ohms	
Nominal Velocity of Propagation	85%		85%		85%	
Shielding Effectiveness	>100dB		>100dB		>100dB	

Attenuation @ 20 deg. C

Frequency MHz.	RG-59 Maximum dB/100m	RG-6 Maximum dB/100m	RG-11 Maximum dB/100m
211	12.47	10.00	6.23
250	13.45	10.82	6.72
270	14.08	11.12	6.99
300	14.84	11.72	7.37
325	15.45	12.20	7.67
350	15.75	12.63	7.94
400	16.73	13.61	8.53
450	17.72	14.43	9.02
500	18.70	15.09	9.51
550	19.52	16.08	9.97
600	20.34	16.73	10.43
750	22.87	18.54	11.97
870	24.67	20.01	13.05
1000	26.64	21.49	14.27

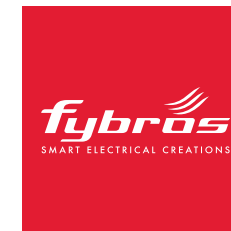
- BETTER RECEPTION
- LESS ELECTRO MAGNETIC INTERFERENCE
- LOW LOSS IN SIGNAL QUALITY
- MOISTURE PROOF
- HIGHER BAND WIDTH
- EXCELLENT ADHESION



TELEPHONE & SWITCH BOARD CABLES

Tele-communications cables

Made of pure electrolytic grade bright annealed bare copper as per IS:8130 in 0.4, 0.5, 0.6 & 0.7 mm. The insulated cores are twisted to form pairs and bunched to minimize cross talk. The cores are helically wrapped. Non hygroscopic and non wicking polyester tape or tape to form laid up cables. The laid up cables are further jacketed with grey colour and high oxygen index fire retardant PVC. Fybros Telephone and Switchboard cables are recommended for switchboard and internal telephone wiring in multi-storeyed buildings, offices, factories, hotels, hospitals and residential complexes.



ELECTRICAL PARAMETERS

Conductor resistance
Mutual capacitance
Insulation resistance in Air
Capacitance unbalance Pair to Pair

0.4

Max. 143.0 ohm/km at 20°C
Max. 50 nf/km
Min. 10000N-Ohm/km
Max. 250 pf/km

0.5

Max. 92.20 ohm/km at 20°C
Max. 50 nf/km
Min. 10000M-Ohm/km
Max. 250 pf/km

COLOUR COMBINATION

No. of Pairs

Pair No. 1
Pair No. 2
Pair No. 3
Pair No. 4
Pair No. 5

2 Pair

White - Blue
White - Orange

5 Pair

White - Blue
White - Orange
White - Green
White - Brown
White - Grey

CONSTRUCTION

Conductor		Insulation		Rip Cord		Sheath	
Material	Nominal Diameter (mm)	Material	Nominal Thickness (mm)	Nominal Dia of Insulated Conductor (mm)	Material	Material	Nominal Thickness (mm)
Bright Annealed Pure Electrolytic Bare Solid Copper	0.50	PVC	0.20	0.92	Nylon	FR PVC with high oxygen and temp. index	1 Pair 0.50
							2-8 Pair 0.65
							10 Pair 0.75
Bright Annealed Pure Electrolytic Bare Solid Copper	0.40	PVC	0.20	0.82	Nylon	FR PVC with high oxygen and temp. index	1 Pair 0.50
							2-8 Pair 0.65
							10 Pair 0.75

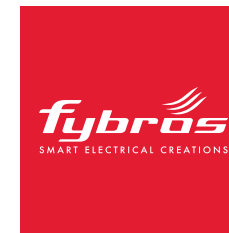


XLPE / PVC

LT-POWER/CONTROL CABLE

Insulated Cables

Conductors are made from electrolytic grade aluminium / copper conforming to IS:8030, and are compact or compact shaped, solid / stranded circular. Fybras XLPE cables are specially made from high grade cross-linked polyethylene for insulation by extrusion process. In multiple cables, cores are laid-up as per the above colour scheme, inter slices are filled wherever necessary to make the laid-up cores circular.



OPERATING CHARACTERISTIC :

A. Max. Conductor Temperature for continuous operation :	90°C
B. Ambient Air Temperature :	40°C
C. Standard Ground Temperature :	30°C
D. Thermal Resistivity of Soil :	150°C Cm/Watt
E. Thermal Resistivity :	350°C Cm/Watt
F. Depth of Laying (for Cables laid direct in ground) :	75 cm
G. Minimum Bending Radius (for Multi Core Cables) :	12D (D-Dia of cable)
H. Max. Conductor temperature during short circuit :	250°C
I. Maximum Ambient, Air temperature :	85°C
J. Type of Installation	
i. 3 Core Cables	- Installed Independently
	- Three Cables in Trefoil
ii. Single Core Cables	- Touching each other

PRODUCT CODE : As per IS:7098-Part:1

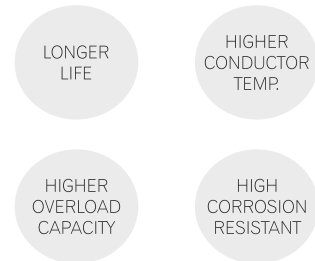
CONSTITUENT	CODE
* Aluminium Conductor	A
* XLPE Insulation	2X
* Round Steel Wire	W
* Flat Steel Strip Armour	F
* Double Round Steel Wire Armour	WW
* Double Flat Steel Strip Armour	FF
* Non Magnetic (AL) Round Wire Armour	WA
* Non Magnetic (AL) Strip Armour	FA
* PVC Outer Sheath	Y

Advantages of our LT XLPE Cables :

- * Higher Rating of Current and short circuits.
- * Thermosetting nature
- * Insulation resistance is 100 times more than PVC cables
- * High moisture resistance
- * Improved surge current resistance
- * Low dielectric losses
- * Enhanced chemical and corrosion resistance

Main Features :

- * LT-XLPE Cables have longer life as compared to conventional PVC Cables
- * LT-XLPE Cables have a higher conductor temperature rating i.e. 90°C.
- * LT-XLPE Cables have a higher emergency overload capacity 120° C.
- * Max. Temperature limit under short circuit conditions for LT-XLPE Cables is 250°C. Hence XLPE Cables have higher short circuit rating.
- * Insulation resistance of LT-XLPE Cables is excellent & superior to identical PVC Cables
- * LT-XLPE Cables have high corrosion resistance in polluted atmosphere
- * LT-XLPE Cables have better properties of resistance to chemical and corrosive gases
- * LT-XLPE Cables have low installation cost because of light weight dimensions and are far more flexible
- * LT-XLPE Cables have better properties to withstand vibrations hot impacts
- * Jointing of LT-XLPE Cables is easier and quicker.



LT XLPE CABLES					LT PVC CABLES				
CABLE TYPE	CONDUCTOR	GRADE	MFG. RANGE SPECIFICATION	RELEVANT	CABLE TYPE	CONDUCTOR	GRADE	MFG. RANGE SPECIFICATION	RELEVANT
Power Cable	Aluminium & Copper Conductor	1.1 KV	Single core upto 1000 mm ² and Multicore upto 630 mm ²	IS:7098 / PART-1/ 1988	Power Cable	Aluminium & Copper Conductor	1.1 KV	Single core upto 1000 mm ² and Multicore upto 630 mm ²	IS:1554 / PART-1/ 1988
Control Cable	Copper Conductor	1.1 KV	Up to 61 core 1.5 mm ² and 2.5 mm ²	IS:7098 / PART-1/ 1988	Control Cable	Copper Conductor	1.1 KV	Up to 61 core 1.5 mm ² and 2.5 mm ²	IS:7098 / PART-1/ 1988



COMPUTER & LAN

Networking Cables

LAN CABLES - CAT 5E 100 MHZ. (unshielded Twisted Pair) CAT 5E UTP cables are very effective network cabling systems used in modern computer networks. These cables form the backbone of modern data transmission in Commercial areas, Industries, Buildings, Fybros provide a wide range of CAT, 5E Cable & Fibre Optic Cables that is manufactured using quality tested material, is a twisted pair cable type designed for high signal integrity. Many such cables are unshielded but some are shielded. Category 5 has been superseded by the Category 5e specification. This type of cable is often used in structured cabling for computer networks such as Ethernet, and is also used to carry many other signals such as basic voice services. These products are known for high quality features like flexibility, compatibility and durability. This cables from the backbone of modern data transmission in commercial areas.



Insulation
Conductor

Sheath
Rip Cord

Technical Data

Impedance	100+/-15 ohm
Mutual Capacitance, max nf/100m	5.6
DC Resistance, max Ohm / 100m at 20°C	9.38
DC Resistance Unbalance of a Pair, max	5%
Capacitance Unbalance - pair to Ground, max	330 pf/100 m
Velocity of Propagation at 100 MHZ, Min	62%
Propagation Delay Skey at 20°C, max	45 ns/100 m
Propagation Delay at 100 MHZ, 20°C, max	538 ns/100 m

SPECIFICATION / CONSTRUCTION

Conductor	Insulation	No. of Pairs	Colour Combination	Rip Cord	Sheath. Colour	Nom. over all Diameter
24 AWG (0.5 mm) bare solid copper	HDPE FRPE	4 UTP (Unshielded Twisted Pair)	Pair 1. Blue-White/Blue 2. Orange - White/Orange 3. Green - White/Green 4. Brown - White/Brown	Nylon cord under sheath	FR PVC Grey colour (other colours available on request)	5.2 ± 0.2 mm

SPECIFICATION / CONSTRUCTION

Frequency (MHz)	Attenuation Max (db/100m)	NEXT min. (db)	ACR Min. (db)	PC NEXT Min. (db)	PC ACR Min. (db)	ELFEXT Min (db/100 m)	PS ELFEXT Min (db/100 m)	RL Min. (db)
1	2.0	65.3	63.3	62.3	60.3	63.8	60.8	20.0
4	4.0	56.3	52.2	53.3	49.2	51.7	48.7	23.0
8	5.8	51.8	46.0	48.8	43.0	45.7	42.7	24.5
10	6.5	50.3	43.8	47.3	40.8	43.8	40.8	25.0
16	8.2	47.3	39.1	44.3	36.1	39.7	36.7	25.0
20	9.3	45.8	36.5	42.8	33.5	37.8	34.8	25.0
25	10.4	44.3	33.9	41.3	30.9	35.8	32.8	24.3
31.25	11.7	42.9	31.2	33.9	38.2	33.9	30.9	23.6
62.5	17.0	38.4	21.4	35.4	18.4	27.8	24.8	21.5
1000	22.0	35.3	13.3	32.3	10.3	23.8	20.8	20.1

- HIGH BIT RATES
- USE IN STRUCTURAL CABLINE
- CHOICES OF JACKETING
- SNARI FREE PACK
- SUBSTITUTE FOR IMPORTED CABLES



CCTV CABLES

CLOSED CIRCUIT TELEVISION CABLES

FYBROS CCTV Cables : Surveillance is a primary function in safety and security for many environments such as schools, casinos, prisons and businesses. The selection of cameras and other electronic equipment is a primary concern, but the link between the electronics should be taken with extreme caution. FYBROS Wire provided CCTV coaxial cables from short run appliances to the most critical long-distance applications. CCTV Cables provided by us is a composite structure of Video and audio wires intended to install the cameras with audio system from one point to equipments system. We use best quality raw materials to ensure efficient operation standards. Further, our CCTV Cables are safe and reliable transmission of voice, video & data. These CCTV Cables are available in various specifications and reasonable prices to suit client's.



CONSTRUCTION	MATERIAL	KUNDAN CAB	KUNDAN CAB
CABLE SIZE		CCTV CABLE 3+1	CCTV CABLE 4+1
POWER CABLE		3C X 0.15 SQ. MM	4C X 0.15 SQ. MM
CONDUCTOR	ATC	ATC	ATC
NO. OF STRANDS	NOS	14	14
STRAND DIA	MM	0.124	0.124
INSULATION	PVC	PVC	PVC
THICKNESS (NOMINAL)	MM	0.56	0.56
COLOR		R, BE, Y	R, BE, RR, Y
COAXIAL CABLE			
CONDUCTOR		ATC	ATC
CONDUCTOR DIA	MM/NOS	0.124/14	0.124/14
(NOMINAL)/NO. OF WIRE			
INSULATION	HDPE	FOAM	FOAM
THICKNESS	MM	1.34	1.34
AL-FOIL		AL-FOIL	AL-FOIL
THICKNESS	MM	0.052	0.052
(NOMINAL)			
WIDTH (NOMINAL) / OVERLAP	MM/%	15/100%	15/100%
BRAIDING	ATC	ATC	ATC
WIRE DIA (NOMINAL)	MM	0.12	0.12
BRAIDING COVERAGE	%	60	60
OVERALL OUTER SHEATH	PVC	PVC	PVC
COLOR	WHITE	WHITE	WHITE
THICKNESS	MM	0.70	0.70

DURABLE

HIGHLY SHOCK PROOF

HIGH TENSILE STRENGTH

STURDY CONSTRUCTION

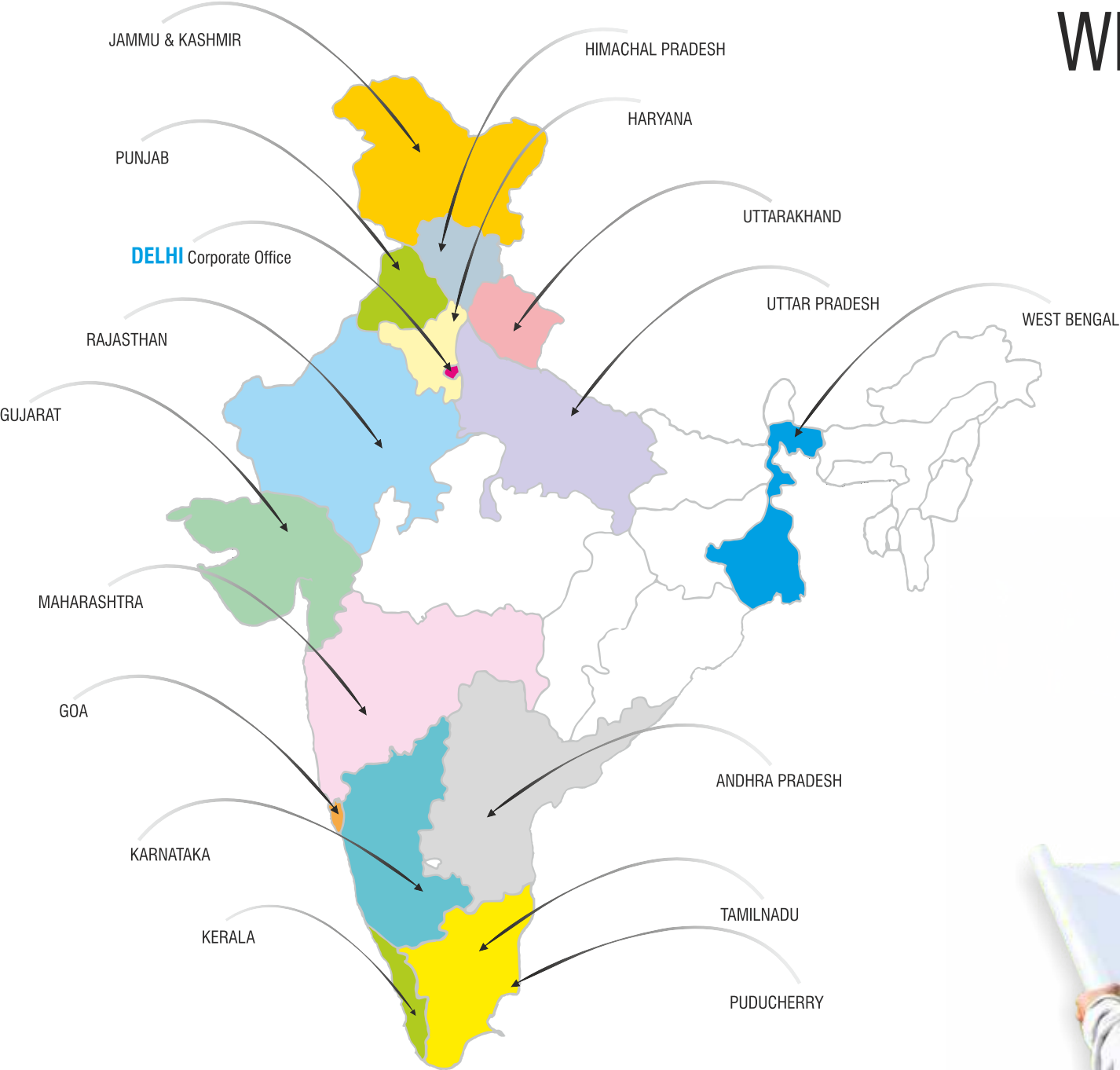


Client List



Cables For Every Weather

Where to find us ?



NOTES

A series of horizontal dashed lines for writing notes, extending across the width of the page. The lines are evenly spaced and provide a guide for handwriting.



BALAR MARKETING PVT. LTD.

Regd. Corporate Office : 217, Functional Industrial Estate,
Patparganj, New Delhi - 110 092, INDIA

Works : F-8, RIICO Industrial Area, Phase-I
Bhiwadi-301019, Dist. Alwar, Raj. (INDIA)
Website : www.kundancab.in
E-mail : sales@kundancab.in

TOLL FREE CUSTOMER SUPPORT

1800-270-6334

