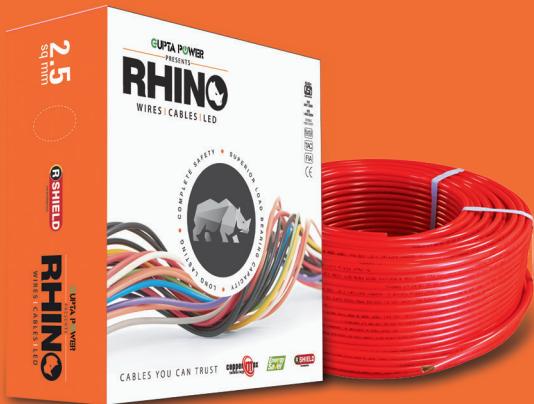
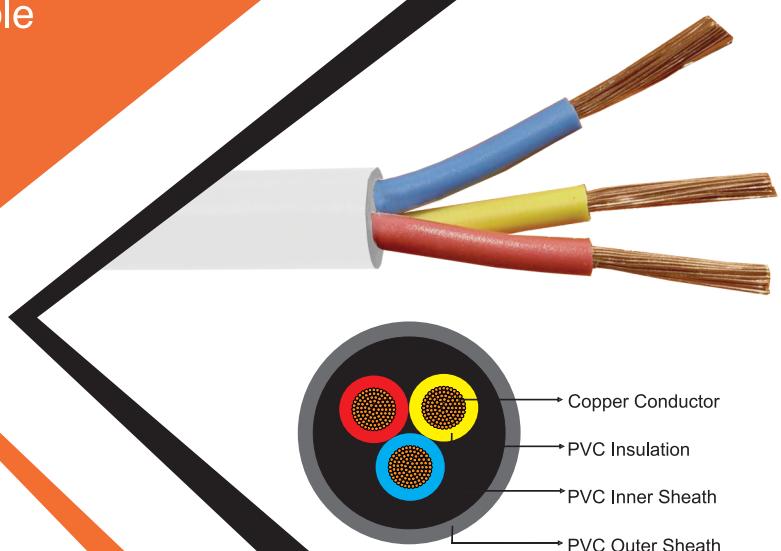


DOMESTIC CATALOGUE



- Single Core Industrial Flexible Cable
- Multi-Core Industrial Flexible Cable
- Submersible Cable

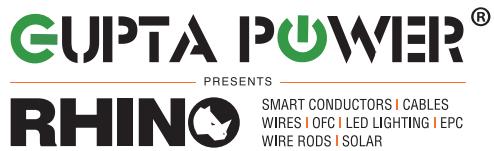


GUPTA POWER®

PRESENTS

RHINO

SMART CONDUCTORS | CABLES
WIRES | OFC | LED LIGHTING | EPC
WIRE RODS | SOLAR

**R SHIELD**

FIRE RETARDANT (FR)

R SAFE

FIRE RETARDANT LOW SMOKE HALOGEN (FRLSH)

R PRO

ZERO HALOGEN FIRE RETARDANT (ZHFR)



- Produced from 99.9% purest Copper under Copper Max technology - delivering absolute hassle free installation and generations of long reliable performance while ensuring substantially low electricity consumption.
- The PVC used for insulation is carefully compounded in house on Highly Specialised Machines with customised additives and plasticisers to ensure extra protection from fire while ensuring the best insulation properties.
- The shop floors are equipped with (1) world's best Niehoff™ Gruppe wire drawing and bunching machines from Germany, (2) Finest extruders having automatic Self Centering cross heads to ensure over 95% centricity of conductor - an equal protection from all 360 degree angle from the centre of the wire and 3) The coiling and packing is done on microprocessor controlled automatic machines to ensure exact specified lengths of wires.
- The World class manufacturing facilities are strongly supported by stringent quality control by the country's best team of experts. The entire process is exhaustively checked at each and every stage of manufacturing operation. The motto of the entire team is to deliver the purest at its finest form.

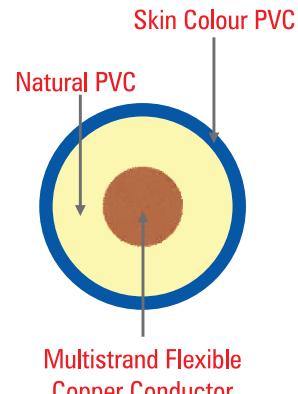
It shall not be out of place to state that the parent group Gupta Power's financial strength and strong ethical values are the foundation of RHINO™ wires making them very special and different from various other brands available in the market.



Plain Copper Conductor, FR/FRLS-H PVC Insulated (Unsheathed) Single Core Flexible Industrial Cables, 1100 Voltage Grade

Table 1

Nominal Cross Sectional Area of Conductor	Number/ Nom. Dia of Cond. Strands*	Thickness of Insulation (Nom)	Approx Overall Diameter	Current Carrying Capacity 2 Cables Single Phase		Max. Conductor Resistance per Km at 20° C
				Conduit/ Trunking	Unenclosed Clipped Directly to a Surface or on Cable Trays	
sq.mm	mm	mm	mm	amps	amps	ohms
0.75	24/0.2	0.6	2.5	8	10	26
1.0	14/0.3	0.7	2.7	13	14	18.1
1.5	22/0.3	0.7	2.9	16	19	12.1
2.5	36/0.3	0.8	3.6	22	26	7.41
4.0	56/0.3	0.8	4.1	29	35	4.95
6.0	84/0.3	0.8	4.7	37	44	3.30



Note : 90 meters length in carton packaging & 180 meters project lengths in polywrap packaging "Conductor Shall be class-II for 1.0, 1.5 & 2.5 sq. mm & for other size shall be of class V as per IS:8130.

The number and diameter of conductor strands are for reference only. Conductor resistance as per IS:8130 is the governing criteria

Construction :

Conductor : Plain annealed copper conductor as per IS:8130

Insulation : Primary-Natural PVC with FR / FRLS-H property

Secondary : Skin colour coated PVC with FR / FRLS-H property

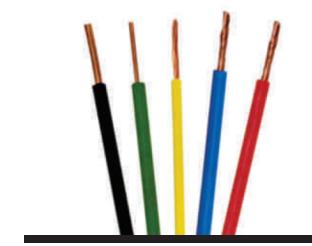
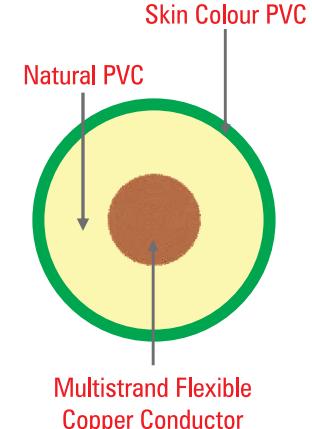
Colour : Red / Yellow / Blue / Black / Green

Any other colour on specific request can also be supplied.

Plain Copper Conductor, FR/FRLS-H PVC Insulated (Unsheathed) Single Core Flexible Industrial Cables, 1100 Voltage Grade

Table 2

Nominal Cross Sectional Area of Conductor	Number/ Nom. Dia of Cond. Strands*	Thickness of Insulation (Nom)	Approx Overall Diameter	Current Carrying Capacity 2 Cables Single Phase		Max. Conductor Resistance per Km at 20° C
				Conduit/ Trunking	Unenclosed Clipped Directly to a Surface or on Cable Trays	
sq.mm	mm	mm	mm	amps	amps	ohms
0.5	16/0.2	0.6	2.2	4	4	39.00
0.75	24/0.2	0.6	2.5	8	10	26.00
1.0	32/0.2	0.6	2.7	13	14	19.5
1.5	30/0.25	0.6	2.9	16	19	13.3
2.5	50/0.25	0.7	3.6	21	26	7.98
4.0	56/0.3	0.8	4.1	29	35	4.95
6.0	84/0.3	0.8	4.7	37	44	3.30
10	141/0.3	1.0	6.10	50	61	1.91
16	126/0.4	1.0	7.40	68	82	1.21
25	196/0.4	1.2	9.10	85	103	0.780
35	276/0.4	1.2	10.30	108	132	0.554
50	396/0.5	1.4	12.20	144	174	0.386
70	360/0.5	1.4	14.10	256		0.272
95	457/0.5	1.6	16.40	304		0.206
120	608/0.5	1.6	18.00	359		0.161
150	750/0.5	1.8	20.10	406		0.129
185	925/0.5	2.0	22.30	466		0.106
240	1221/0.5	2.2	25.20	550		0.0801



Note : Conductor as per class V Supplied in 100 meters length as per IS:694 & in bigger packing on request with 5% length tolerance.

The number and diameter of conductor strands are for reference only. Conductor resistance as per IS:8130 is the governing criteria.

Plain Copper Conductor, PVC Insulated and PVC Sheathed Multicore Flexible Industrial Cables, 1100 Voltage Grade

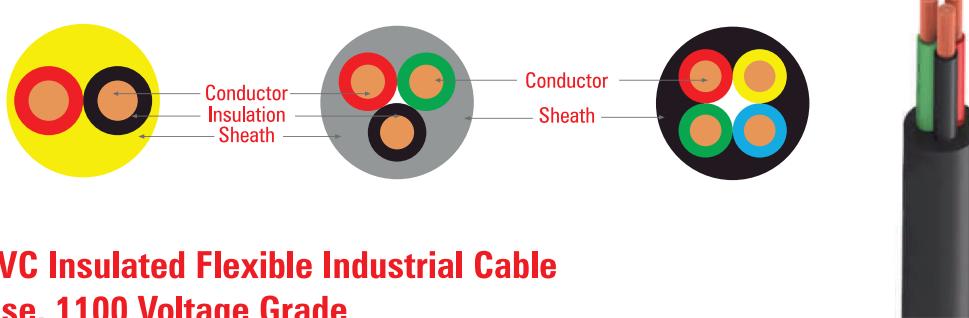
Table 3

Nominal Cross Sectional Area of Conductor	Number/ Nom. Dia of Cond. Strands*	Thickness of Insulation (Nom)	Nominal Thickness of Sheath			Approx Overall Diameter			Current Rating AC	Voltage Drop/ Amp/Meter		Max. Conductor Resistance per Km at 20° C
			Two Core	Three Core	Four Core	Two Core	Three Core	Four Core		DC of Single Phase AC	3 Phase AC	
sq.mm	mm	mm	mm	mm	mm	mm	mm	mm	amps	mv	mv	ohms
0.5	16/0.20	0.6	0.9	0.9	0.9	6.2	6.6	7.2	5	83	72	39.0
0.75	24/0.20	0.6	0.9	0.9	0.9	6.5	6.9	7.6	8	56	48	26.0
1.0	32/0.20	0.6	0.9	0.9	0.9	6.9	7.3	8.2	13	43	37	19.5
1.5	30/0.25	0.6	0.9	0.9	0.9	7.6	8.2	9.3	18	31	26	13.3
2.5	50/0.25	0.7	1.0	1.0	1.0	9.0	9.6	10.5	24	18	16	7.98
4.0	56/0.30	0.8	1.0	1.0	1.0	10.3	10.9	12.3	31	11	9.6	4.95

Note: Available in 100 meters length with black outer sheath & in bigger packing on request. Any colour on specific request can be supplied, in economical run.

* The number and diameter of conductor strands are for reference only. Conductor resistance as per IS:8130 is the governing criteria.

** Conductor for all size shall be of class V as per IS:8130.



Three Core Flat PVC Insulated Flexible Industrial Cable for Submersible use, 1100 Voltage Grade

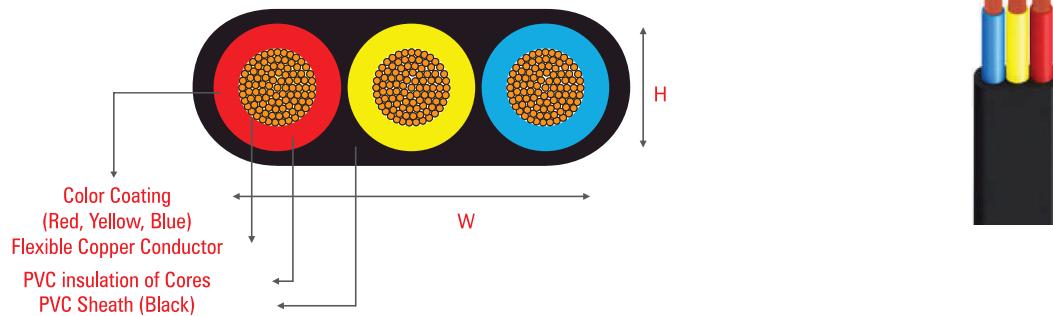
Table 4

Nominal Area of Conductor	Insulation			Sheath Approx Overall Dimensions		Max. Conductor Resistance per Km at 20° C (Max.)	Current Carrying Capacity
	*Number/Size of Wire for Each Core	Thickness (Nom.)	Core dia Approx. (Nom.)	Width W (Nom.)	Height H (Nom.)		
sq.mm	sq.mm	mm	mm	mm	mm	ohm/km	amps
1.50	30/0.25	0.6	2.9	10.4	4.8	13.3	14
2.50	50/0.25	0.7	3.6	12.8	5.7	7.98	18
4.00	56/0.3	0.8	4.1	15.0	6.5	4.95	26
6.00	84/0.3	0.8	4.7	16.8	7.2	3.30	31
10.00	141/0.3	1.0	6.10	21.0	8.8	1.91	42
16.00	126/0.4	1.0	7.4	24.3	10.0	1.21	57

Note: Conductor as per class V. Available in $500 \pm 5\%$ meters packing on drums. Also available in 100 meters 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 for all size shall be of class V.



Rhino FRLS-H Insulated Cables (Flame Retardant - Low Smoke & Halogen)

FRLS-H Flexible cables are recommended for use in places with high human concentration like high rise buildings, offices, shopping malls, hospitals etc.

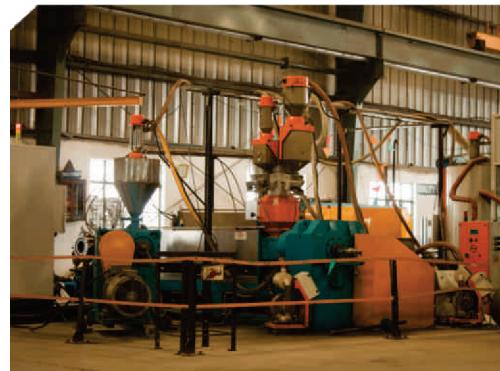
Rhino FRLS-H insulated cables are made from specially formulated PVC Polymers that restrict the toxic gases and smoke as they are self extinguishing and do not allow the fire to spread.

Rhino Zero Halogen Flame Retardant cables are the final word in safety.

These cables are manufactured using a special polymeric compound which is practically free of Halogen content. ZHFR cables are highly recommended for places like: shopping malls, offices, cinema halls etc.

An oxygen mask helping people trapped in fire breathe.

Non Toxic - Research shows that maximum number of casualties in fire happen due to choking caused by generation of smoke and gases. PVC Flame Retardant Low Smoke and Halogen cables release lesser toxic gases compared to ordinary PVC cables. Smoke generation in case of FRLS-H cables is <20% in this aspect. ZHFR cables are 10 times more superior to FRLS-H cables as they contain practically 0% halogens & therefore in case of fire release of hazardous gases is <2%. This ensures that people trapped in fire can breathe easily facilitating better chances of their rescue.



Save the environment

Every day thousands of tonnes of hazardous halogen gases are released in the environment resulting in depletion of the earth's ozone layer (which protects us from cancer causing UV radiations of the sun) a phenomenon popularly known as green house effect. Rhino ZHFR insulated industrial cables contain practically 0% halogens and therefore are environment friendly. So when you sell / buy these cables you are not only protecting your nears and dears but also the future generations against the Green House Effect.



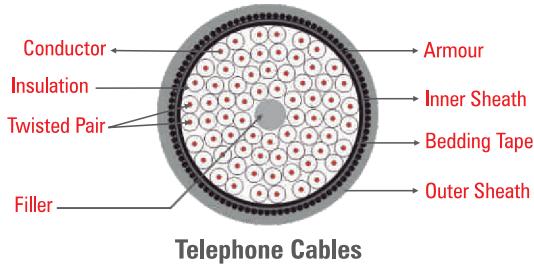
Some comparative technical features are given in the details below :

S. No.	Feature	Standard Range Flame Retardant FR	Flame Retardant Low Smoke & Halogen FRLS-H	Low Smoke ZHFR
1	Insulation material	Spl. PVC	Spl.PVC	Spl. Polymer
2	Insulation Property	Good	Good	Very Good
3	Temperature Rating	70° C	70° C	70° C
4	Thermal Stability	Good	Good	Very Good
5	Flame Retardancy	Very Good	Very Good	Excellent
6	Safety during Burning	Good	Good	Excellent
7	Requirement of Critical Oxygen Index as per ASTMD-2863 to catch the fire (%)	>29	>29	>35
8	Temperature Index	>250°C	>250°C	>280°C
9	Light Transmission (Visibility) during burning as per ASTMD-2843 Burning (%)	NA ---	>40% Good	> 80% Excellent
10	Release of Halogen Gas during Burning (%)	NA ---	<20% Good	<2% Excellent
11	Abrasion Resistance during installation	Good	Good	Good

Telephone Switch Board Cable

Application

Cable used for Indoor Telephones, Telephone Exchanges, Satellite Telecommunication Systems, Industrial Plant Communication Systems, EPBAX Systems, Closed Circuit Security Systems, In-House Telephone Wiring and various other equipments involving telephones.



Standard

Cables are generally made as per TEC Specification No. G/WIR-06/02 or as per customer specification.

Construction

Solid annealed tinned/bare copper conductor, PVC insulated cores suitably color coded for distinct identification, twisted to form pairs, pairs laid up, PVC sheathed. Armoured Cables are provided with Galvanised steel wire/strip armouring and then sheathed again with PVC.

Design / Material Options

Conductor	: Tinned copper/Bare Copper
Insulation	: PVC/Polyethylene
Shielding	: Over all shielded/individual pair shielded and over all shielded with polyester aluminium tape or fine copper wire braid (Manufactured against customer's orders only for economical runs.)
Sheathing	: FRPVC/FRLSH/Polyethylene
Conductor Size Cable	: 0.4/0.5/0.6/0.7/0.8/0.9 mm
Configuration	: 1p, 2p, 3p, 4p, 5p, 10p, 20p
Note : Supplied in 90/305 mtr. length polywrap / Ply Spool	

Buyers

BSNL, C.Dot, switching equipment manufacturers, contractors of BSNL and C-DOT, every industrial and commercial establishment, construction industry and many more beside the general dealer market.

Silent Features for Telephone Cable

- Hard grade PVC insulation is used for long life and stable properties of cables
- Staggered lays of twisted pairs are used to insure minimum cross talk
- Sizing and processing of conductor and insulated cores is done in precisely controlled manner on automatic modern machines to have optimum values of capacitance, capacitance unbalance, image and cross talk attenuation and characteristic impendence .
- Shielding is done to protect from outside / inter pair interference as per specific needs

Co-Axial TV Cables



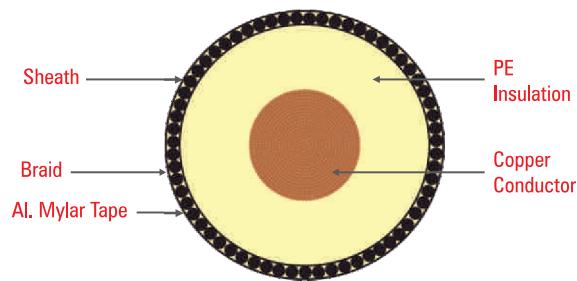
Application

Used in cables TV operations, Computer Net-Working etc.

Construction

Used in cables TV operations, Computer Net-Working etc. Solid annealed bare copper conductor polyethylene insulated shielded with polyester backed aluminium tape and additional shielding with fine aluminium braid protected with polyester tape wrapping and sheathed with PVC.

Co-Axial Cables



Co-Axial Cables

S. No.	Type	
1	Size	RG-59, RG-6, RG 11
2	Inner Conductor	Solid Copper
3	Insulation	Gas Injected Physical Foamed Polyethylene
4	Outer Conductor	Bonded Polyaluminum Tape, Braided with Aluminum Alloy wire
5	Outer Jacket	UV Resistance PVC Jacket
6	Marking	Progressive Sequential Length Marking on Every Meter

Note : CCS Co-Axial TV Cables are also available

Rhino FRLS-H Insulated Cables (Flame Retardant - Low Smoke & Halogen)

FRLS-H Flexible cables are recommended for use in places with high human concentration like high rise buildings, offices, shopping malls, hospitals etc.

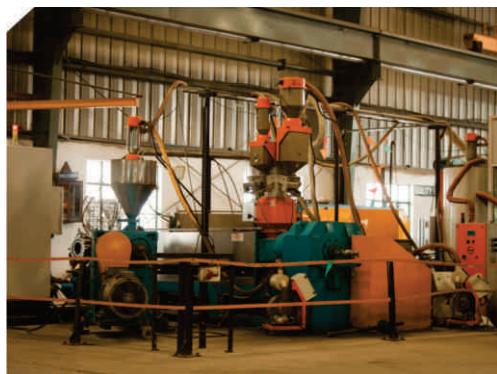
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An oxygen mask helping people trapped in fire breathe.

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Power Partners



Our other range of products



Optical Fiber

- Duct Cables
- Armored Cables
- Cables with Glass Roving
- ADSS Cables
- Aerial Cables
- Hybrid Cables
- CA Cables
- F H Cables
- Indoor Cables



HT / LT Cable (Upto 66kV)

- LT Copper Aluminium Conductor PVC and XLPE Power Cables 1.1 kV
- HT Power Cables
- HT-LT Aerial Bunched Cables
- Instrumentation Cables
- Control Cables
- Mining Cables
- Thermocouple Cables
- Airfield Lighting Cables
- Railway Signalling Cables
- Other Specialised Cables



Conductors

- AAC/AAAC/ACSR/ACAR/AACSR/ AL 59
- HTLS (STACIR/ TACSR/ ACSS/ GAP Type



Wire Rod

- Aluminium and Alloy as per AA-
• 1XXX • 5XXX • 6XXX • 8XXX



Rhino LED Lighting

- | | |
|-----------------------|-----------------------------|
| ▪ Indoor Lighting | ▪ Outdoor Lighting |
| ▪ Retail Lighting | ▪ Corporate campus Lighting |
| ▪ Warehouse Lighting | ▪ Facades |
| ▪ Healthcare Lighting | ▪ Residential Lighting |

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