



IS : 694



CM/L-7300109204



## WIRES & MULTICORE FLEXIBLE CABLES

# OUR PRESENCE IN INDIA



## Office

- Chennai** : No. 36, Govindappa Naicken Street, Parrys, Chennai-600 001.
- Bangalore** : No.105, Paras mansion, 025, Brigade Rd, Ashok Nagar, Bengaluru, Karnataka-560025.
- Telangana** : Suryakiran complex, 203, Second Floor, SD Road, Secunderabad, Telangana-500003.
- Jodhpur** : Panji ka Bera, Pal Rd, opp. Paliwal Hospital, Gayatri Nagar, Jodhpur, Rajasthan-342008.
- Chhattisgarh** : S P Cold Storage, Near Khamtarai Railway Cross Khamtarai, (C.G) Raipur-492001

## Manufacturing units

- Gujarat** : Survey No. 2450, Ahmedabad-Mehsana Highway, Village - Rajpur, Taluka, Kadi, Gujarat-382715.
- Delhi** : 179, FIE Patparganj Indl Area, Delhi-110092.
- Chennai** : 40/3 Inner Ring Road, Manjambakkam, Chennai-600 060.
- Mumbai** : Shripal Industrial Estate, Bldg. No. 3, Wing-C, Gala No. 17, Near Gyandep School, Waliv, Vasai (E)-Palghar - 401 208.

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# PRODUCT RANGE

## RESIDENCIAL WIRES



- HEAT RESISTANCE AND FLAME RETARDANT
- FLAME RETARDANT LOW SMOKE
- COMIT CLASS 5
- ORBIT PRIME
- MULTI-CORE FLEXIBLE CABLES

## SERVICE WIRES



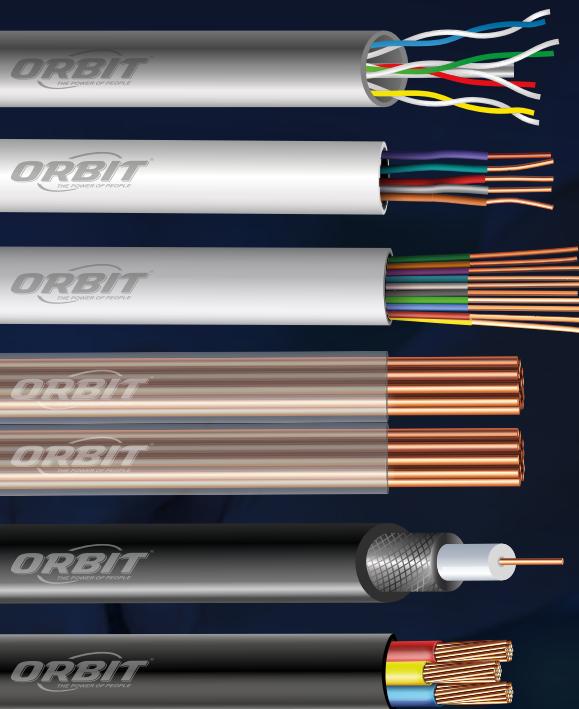
- WELDING CABLES
- SOLID STRAND WIRE
- ALUMINIUM VIR WIRE
- ALUMINIUM TWIN CORE
- SOLID SINGLE CORE

## AGRI & SOLAR CABLES



- 3 CORE SUBMERSIBLE CABLES
- 4 CORE SUBMERSIBLE CABLES
- SOLAR CABLES

## COMMUNICATION CABLE



- LAN CABLES
- CCTV CABLES
- TELEPHONE CABLES
- SPEAKER CABLES
- CO-AXIAL CABLES
- FLEXIBLE CORD CABLES

## ARMOURED CABLES



- SHIELDED CABLES
- COPPER ARMOURED CONTROL CABLES
- COPPER UNARMOURED CONTROL CABLES
- ALUMINIUM ARMOURED CABLES
- ALUMINIUM UNARMOURED CABLES
- ARMoured CONTROL CABLES
- UNARMOURED CONTROL CABLES



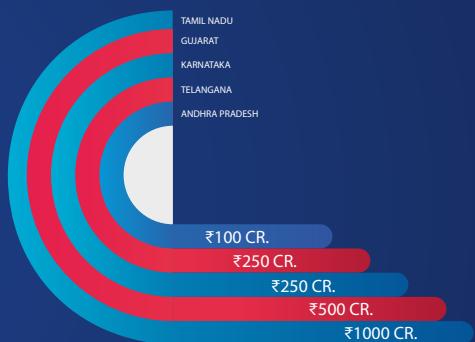
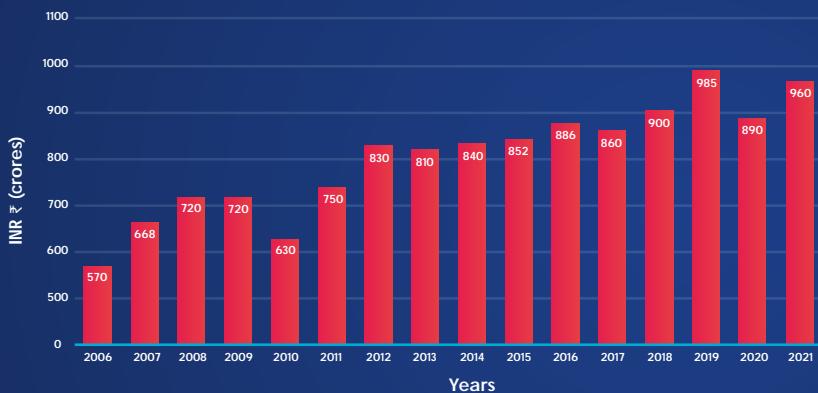
**Orbit Group of Companies** is a renowned wiring and cabling solution partner, established in **1996**. We have dominated the trade and engineering of wires and cables for over two decades with dynamic and pioneering technology.

**Orbit** wires and cables are designed and manufactured by the industry's best and are continually evolving to stay ahead of market demands. Our trusted products are designed and fabricated with efficiency and focus on the minutiae to ensure a satisfactory experience for every customer.

**Orbit** wires and cables are credited to be a **one-stop enterprise** that manufactures and sells a variety of wiring and cabling solutions for diverse applications. As an established enterprise we promise to deliver reliable and standard wiring and cabling solutions for your specific needs at a competitive price.

## MISSION VISION AND VALUES

One of the core purposes of **Orbit Wires India Pvt. Ltd.** is to build a long term relationship with people and organizations across the globe. **Orbit Wires** Company has proactively worked towards creating brand credibility and recognition by maintaining the industry standards of our products. We strive to be an innocuous company with safety as our precedence and aim to ultimately have zero accidents. We aspire to be the best cable manufacturer in the country and establish our brand identity through quality product delivery and commitment towards customer value.





## ■ ATTRIBUTES

### TRIPLE LAYER INSULATION FOR TRIPLE PROTECTION

Orbit Cables come with a unique triple layer insulation to ensure three times the protection a one of its kind feature unique to Orbit.

### 105°C BASE INSULATION

The base layer consist of 105°C temperature rating as against the 70°C of any ordinary cable. The middle and top layers are exceptionally flame retardant (FR). Orbit thus ensures Triple protection of your life and property.

### 99.9% PURE COPPER – PUREST TO THE CORE

At the core of Orbit Cables is the highest purity Electrolytic Grade Copper as against lower grade copper used in ordinary cables that offer poor conductivity. With greater than 100% conductivity ad per IACS (International Annealed Copper Standard), the energy losses are minimal resulting in lower power bills.

### PURE PVC INSULATION

Pure, superior grade PVC resin and compounding ingredients are used to produce and tailor-made PVC compound for each type of cable that has higher insulation resistance, thermal stability and exceptional fire retarding properties. The purity inside ensures safety, reliability and long cable life.



## ■ HEAT RETARDANT – FLAME RETARDANT WITH 105°C BASE INSULATION (HR-FR)

The First Heat Resistant Flame Retardant (HRFR) layer primarily tackles heat generation caused by current flow. It also possesses flame retarding properties.

The middle and top FR (Flame Retardant) layers FIRE Retardant the propagation in the event of an accidental fire.

The HRFR PVC layer withstands temperature rise up to 105° C which may be caused due to excessive power draw, voltage fluctuation or spike. In addition, it acts as barrier to excessive heat transfer to the FR middle and top layer.



### CABLE CHARACTERISTICS

■ Nominal Voltage (U0/U)	:	600/1100 V
■ Max Operating Temperature	:	70°C
■ Temperature Range	:	-15°C to + 70°C
■ Approvals	:	IS 8130:2013
■ Smoke Density Rating	:	Max 60%
■ Flammability	:	IEC 60332 - 1:2004
■ Minimum Bending Radius	:	8D

### SINGLE CORE UNSHEATHED PVC INSULATION COPPER CONDUCTOR CABLES

Nominal Area of Copper Conductor mm <sup>2</sup>	Nos/Nom Diameter of wire Nos./mm	Nominal Thickness of Insulation mm	Approx Overall Diameter mm	Max DC Resistance at 20°C ohm /km	Current Rating 2 Cable Single phase AC/DC Amp
0.50	16 / 0.2	0.6	2.2	39.00	4
0.75	24 / 0.2	0.6	2.4	26.00	7
1	14 / 0.3	0.7	2.7	18.10	13
1.5	22 / 0.3	0.7	3.0	12.10	16
2.5	36 / 0.3	0.8	3.6	7.41	22
4	56 / 0.3	0.8	4.1	4.95	29
6	84 / 0.3	0.8	4.7	3.30	37
10	140 / 0.3	1.0	6.2	1.91	51
16	126 / 0.4	1.0	7.3	1.21	69

COLOUR: RED, YELLOW, BLUE, BLACK & GREEN

## FLAME RETARDANT – LOW SMOKE WITH 105°C BASE INSULATION (FR-LS)

With all properties of FRLS, the insulation of Orbit Cables is further fortified with low smoke and low halogen emission characteristics. These Cables emit 50% less smoke as compared to other cables and with even lesser amounts of corrosive halogen acid and toxic gases. These are good to use in modern homes using multiple electrical appliances with high power draw, high rise residential buildings, commercial complex, public place, schools, hospitals, etc.



### CABLE CHARACTERISTICS

■ Nominal Voltage (U0/U) :	600/1100 V
■ Max Operating Temperature :	70°C
■ Temperature Range :	-15°C to + 70°C
■ Approvals :	IS 8130:2013
■ Oxygen Index :	>29%
■ Flammability :	IEC 60332 - 1:2004
■ Minimum Bending Radius :	8D

### SINGLE CORE UNSHEATHED PVC INSULATION COPPER CONDUCTOR CABLES

Nominal Area of Copper Conductor mm <sup>2</sup>	Number/Nominal Diameter of Wire Nos. / mm	Nominal Thickness of Insulation mm	Approx Overall Diameter mm	Max DC Resistance at 20°C Ohm / km	Current Rating 2 Cable Single Phase AC/DC Amp
1	14/0.3	0.7	2.7	18.10	13
1.5	22/0.3	0.7	3.0	12.10	16
2.5	36/0.3	0.8	3.6	7.41	22
4	56/0.3	0.8	4.1	4.95	29
6	84/0.3	0.8	4.7	3.30	37
10	140/0.3	1.0	6.2	1.91	51
16	126/0.4	1.0	7.3	1.21	69

COLOUR: RED, YELLOW, BLUE, BLACK & GREEN

## ■ ZERO HALOGEN FLAME RETARDANT (ZHFR) ZHFR WITH 105°C BASE INSULATION

Made with best grade imported ZHFR insulation. Orbit Cables guarantee absolute zero emission of smoke and harmful toxic gases like halogen in an event of fire. Thus, Orbit Cables are best suited for superior safety of residential and commercial complexes, theatres, metro railways, chemical and nuclear plants, high security and defence installations, etc.



## CABLE CHARACTERISTICS

- Nominal Voltage (U0/U) : 600/1100 V
- Max Operating Temperature : 70°C
- Temperature Range : -15°C to + 70°C
- Flammability : IEC 60332 - 1:2004
- Minimum Bending Radius : 8D

## SINGLE CORE INSULATED UNSHEATHED 1100 VOLTS, COPPER CONDUCTOR CABLE

Nominal Area of Copper Conductor mm <sup>2</sup>	Number/Nominal Diameter of Wire Nos. / mm	Nominal Thickness of Insulation mm	Approx Overall Diameter mm	Max DC Resistance at 20°C Ohm / km	Current Rating <sup>2</sup> Cable Single Phase AC/DC Amp
1	14/0.3	0.7	2.7	18.10	13
1.5	22/0.3	0.7	3.0	12.10	16
2.5	36/0.3	0.8	3.6	7.41	22
4	56/0.3	0.8	4.1	4.95	29
6	84/0.3	0.8	4.7	3.30	37

**COLOUR:** RED, YELLOW, BLUE, BLACK & GREEN

## FLEXIBLE CABLES

With a highly flexible class 5 conductor and specially designed Flame Retardant (FRLS) flexible PVC insulation compound that imparts exceptional flexibility, these cables can be used in confined and constricted spaces.

Our Flexible cables assure maximum stretch endurance and zig zag / sharp hairpin bends without any stress to the insulation.



**Conductors :** The conductors are drawn from bright electrolytic grade copper, annealed and bunched together (multi- stranded ) as per class 5 of IS 694:2010

**Insulation:** Bunched conductors are insulated with specially formulated PVC compound having high insulation resistance value. The insulation process is carried out on modern high speed extrusion lines with a high degree of accuracy, thus ensuring consistency in performance.

**Sheathing :** In case of multi core cable, the insulated cores are laid up to form the core assembly, Sheathing is provided with specially formulated PVC compound to facilitate stripping as also to withstand mechanical abrasion while in use.

**Quality Control :** You are assured of the highest quality standards in every product. Stringent quality control tests are applied at every stage from raw material to finished goods stage so as to give you the best product, meeting relevant quality standards.

## SINGLE CORE INDUSTRIAL CABLES AS PER IS 694:2010 PVC INSULATED AND SHEATHED 11000 VOLTAGES

Nominal Area in Sq. mm.	Max. DC Resistance Ohm/Km at 20°C	Nominal Insulation Thickness in mm.	Outer Diam (Approx)	Current Rating in Amps.
0.50	39.00	0.60	2.1	4
0.75	26	0.60	2.27	7
1.00	19.50	0.60	2.44	12
1.50	13.30	0.60	2.66	16
2.50	7.98	0.70	3.27	22
4.00	4.95	0.80	3.99	29
6.00	3.30	0.80	4.52	37
10.00	1.910	1.00	5.9	51
16.00	1.210	1.00	7.0	68
25.00	0.780	1.20	8.77	86
35.00	0.554	1.20	9.67	110
50.00	0.386	1.40	11.44	145
70	0.272	1.4	13.44	215
95	0.206	1.6	15.46	260
120	0.161	1.6	17.16	305
150	0.129	1.8	19.08	355

## ■ ORBIT COPPER CONDUCTOR, PVC INSULATED AND SHEATHED 1100V MULTICORE INDUSTRIAL CABLES

Nominal Area in Sq. mm.	Max. DC Resistance Ohm/Km at 20°C	Nominal Insulation Thickness in mm.	Core diam. (mm.)	Nominal Sheath Thickness in mm.			Overall Diameter in mm. (Approx)			Current Rating in Amps.		
				2 core	3 core	4 core	2 core	3 core	4 core	2 core	3 core	4 core
0.50	39.00	0.60	2.20	0.90	0.90	0.90	6.08	6.41	6.96	4	3	3
0.75	26.00	0.60	2.40	0.90	0.90	0.90	6.44	6.8	7.39	7	6	6
1.00	19.50	0.60	2.60	0.90	0.90	0.90	6.78	7.17	7.8	12	10	10
1.50	13.30	0.60	2.80	0.90	0.90	1.00	7.22	7.65	8.34	16	14	14
2.50	7.98	0.70	3.50	1.00	1.00	1.00	8.64	9.16	10.01	20	18	18
4.00	4.95	0.80	4.30	1.00	1.00	1.00	10.08	10.94	11.98	27	24	24
6	3.30	0.80	4.80	1.10	1.20	1.20	11.36	12.28	13.46	34	30	30
10	1.91	1.00	6.30	1.30	1.40	1.40	14.50	15.66	17.28	44	39	39

## ■ ORBIT BARE COPPER CONDUCTOR, PVC INSULATED SHEATHED 1100 V, MULTICORE INDUSTRIAL WIRES AND CABLES

Nominal Area in Sq. mm.	Max. DC Resistance Ohm/Km at 20°C	Nominal Insulation Thickness in mm.	Core diam. (mm.)	Nominal Sheath Thickness in mm.			Overall Diameter in mm. (Approx)			Current Rating in Amps.		
				2 core	3 core	4 core	2 core	3 core	4 core	2 core	3 core	4 core
16	1.21	1.00	7.30	1.40	1.40	1.40	16.94	18.06	19.88	61	55	55
25	0.780	1.20	9.10	1.40	1.50	1.60	20.48	22.10	24.58	69	60	60
35	0.554	1.20	10.10	1.60	1.60	1.70	22.70	24.85	26.98	88	77	77
50	0.386	1.40	11.90	2.00	2.00	2.00	27.04	28.89	31.86	116	102	102
70	0.272	1.40	13.90	2.20	2.20	2.20	31.48	33.65	37.15	155	140	140
95	0.206	1.60	16.30	2.40	2.40	2.40	35.94	38.43	42.45	190	165	165

## ■ ORBIT MULTI CORE INDUSTRIAL CABLES

Nominal Area in Sq. mm.	Avg Sheath thickness mm								Overall Diam mm							
	6 core	7 core	8 core	10 core	12 core	14 core	16 core	19 core	6 core	7 core	8 core	10 core	12 core	14 core	16 core	19 core
0.50	0.90	0.90	1.00	1.00	1.00	1.10	1.10	1.10	8.17	8.17	9.01	10.46	10.79	11.74	12.14	12.77
0.75	1.00	1.00	1.00	1.10	1.10	1.10	1.20	1.20	8.91	8.91	9.82	11.40	11.76	12.33	13.19	13.87
1.00	1.00	1.00	1.00	1.10	1.10	1.10	1.20	1.30	9.42	9.42	10.38	12.08	12.47	13.08	14.0	14.94
1.50	1.00	1.00	1.10	1.10	1.10	1.20	1.20	1.30	10.08	10.08	11.11	12.96	13.39	14.25	15.02	16.04
2.50	1.10	1.10	1.20	1.30	1.30	1.30	1.40	1.40	12.13	12.13	13.55	15.82	16.34	17.16	18.31	19.29
4.00	1.20	1.20	1.30	1.40	1.40	1.40	1.50	1.50	14.50	14.71	15.93	18.90	19.54	20.76	21.91	23.11

Nominal Area in Sq. mm.	Conductor Diam in mm	Avg Insu thickness mm	Core Diam in mm	Max Conductor Resistance in Ohm / km at 20°C	Current Rating in Amp
0.50	0.94	0.60	2.20	39.00	4
0.25	1.20	0.60	2.50	26.00	7
1.00	1.34	0.60	2.60	19.50	12
1.50	1.64	0.60	2.90	13.30	16
2.50	2.08	0.70	3.50	7.98	22
4.00	2.64	0.80	4.30	4.95	29

## OUR MACHINERY PARTNERS



NIEHOFF MACHINES and systems for drawing, annealing, galvanic coating , stranding, and braiding of wires. The individual machines or entire systems multi-wire drawing systems braiding, stranding, electronically controlled wire rod drawing machines and double-twist bunching machines.

Our German Partner



Supermac High Speed insulating line for House Wiring/AutoCable/Control Cable is a dedicated line as per the Customer's requirement. It has flexibility, over in managing a wide range of products. The lines are available in Single/Dual/TripleExtrusion System for providing skin/singleline/dual line through Piggy back mobile Extruder.

Our Indian Partner





**Skip Strander**



**Core Laying-up Machine**



**Drum Twister**



**Armouring Machine**

SARVAVS with time has earned the reputation of being the most innovative and out of the box thinkers in the market. They are the technological leader in cable machinery manufacturing and consultancy in India and have been working towards the goal of complete customer satisfaction ever since the day it started. They have manufacturing units that are equipped with the most sophisticated and modern machinery and equipments, which are complemented by a highly qualified & experienced team of professionals who are always striving hard to improve on the already attained success. A dedicated quality assurance team ensures strict guideline adherence from the raw material stage to the final commissioning of machines. All this has made SARVAVS reach heights that no company has till date attained. Sarvav has been manufacturing and supplying machines to various countries across the globe particularly in India, UAE, Bangladesh, Nepal, Iran, Africa, Europe and Australia.





Survey No. 2450, Ahmedabad - Mehsana Highway, Near Scoda Tubes Limited,  
Village - Rajpur, Taluka - Kadi, District - Mehsana, Gujarat - 382715.