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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**



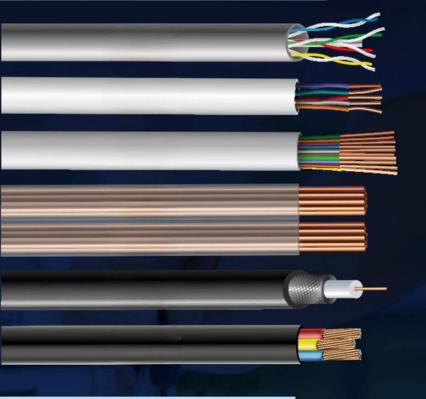
- WELDING CABLES
- SOLID STRAND WIRE
- ALUMINIUM VIR WIRE
- ALUMINIUM TWIN CORE
- SOLID SINGLE CORE

# **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



# ATTRIBUTES

#### TRIPLE LAYER INSULATION FOR TRIPLE PROTECTION

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

### 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). SecureX thus ensures Triple protection of your life and property.

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

At the core of SecureX 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 the in-house specially formulated 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.

























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

With all properties of FRLS, the insulation of SecureX Plus 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 :  $-15^{\circ}$ C to +  $70^{\circ}$ C

■ Flame Resistant : ASTM D2863

■ Oxygen Index : >29%

■ Flammability : IEC 60332 - 1:2004

■ Minimum Bending Radius : 8D

# SINGLE CORE NON-SHEATHED PVC INSULATION COPPER CONDUCTOR CABLES

Nominal Area of Copper Conductor mm2	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

# ■ 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 fightandretard the propagation in the event of an accidental fire.

The HRFR PVC layer withstands temperature rise up to 1050 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 :  $-15^{\circ}$ C to +  $70^{\circ}$ C

■ Flame Resistant : ASTM D2863

■ Smoke Density Rating : Max 60%

■ Flammability : IEC 60332 - 1:2004

■ Minimum Bending Radius : 8D

# SINGLE CORE NON-SHEATHED PVC INSULATION COPPER CONDUCTOR CABLES

Nominal Area of Copper Conductor mm2	Nos/Nom Diameter of wire Nos./mm	Nominal Thickness of Insulation mm	Approx Overall Diameter mm	Max DC Resistance at 20o C ohm /km	Current Rating 2 Cable Sigle 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	36.00	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

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

Made with best grade imported ZHFR insulation. SecureX Ultra Cables guarantee absolute zero emission of smoke and harmful toxic gases like halogen in an event of fire. Thus, SecureX Ultra 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

■ Flame Resistant : ASTM D2863

■ Flammability : IEC 60332 - 1:2004

■ Minimum Bending Radius : 8D

# SINGLE CORE CROSSLINKED (HFI-XL 70) & THERMOPLASTIC (HFI-TP 70) INSULATED UNSHEATHED 1100 VOLTS, COPPER CONDUCTOR CABLE

Nominal Area of Copper Conductor mm2	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

### **■ 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- standed) as per class 5 of IS 8130: 2013

Insulation: Bunched conductors are insulated with specially formulated in-house developed 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 Polycab 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/ MULTI CORE INDUSTRIAL CABLES

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

Nominal Area in Sq. mm.	Area in Ohm/Km at Thickness in		Core diam. (mm.)	Nominal	Sheath T in mm.	hickness		Diametei (Approx)		Cur	rent Ratiı Amps.	ng in
J 4	20°C	mm.	(	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

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

Nominal Area in Sq. mm.	Resistance Insulation Ohm/Km at Thickness in		Core diam. (mm.)	Nominal	Sheath T in mm.	hickness		Diamete (Approx)		Cur	rent Rati Amps.	ng in
	20°C	mm.		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

# ■ BARE COPPER CONDUCTOR, PVC INSULATED UNSHEATHED 1100 V, SINGLE CORE INDUSTRIAL WIRE AND CABLES

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



# ■ MULTI CORE INDUSTRIAL CABLES

Nominal Avg Sheath thickness mm							Overall Diam mm									
Sq. 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.







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** 

SARVASV 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 SARVASV reach heights that no company has till date attained. Sarvasv has been manufacturing and supplying machines to various countries across the globe particularly in India, UAE, Bangladesh, Nepal, Iran, Africa, Europe and Australia.

