

SAHI
CHUNO
SAMAJHDAR
BANO

VRKABLE[®]
— WIRE & CABLES —
EK NAYI SOCH...



IS:694

CM/L-
8530039015

SINCE 1992

A new destination for
wires & cables

VR KABLE ABOUT US



At VR Kable, we believe that our products not only fulfill their purpose, but also add a sense of detail and aesthetic wherever they are used. That's why we always strive towards perfection, because every detail decides the overall quality of our products. VR Kable products have an unmatched design and finish, because we believe in producing the best products that our customers love.

Our focus has always been to implement new technology and innovation in our product lines. Our corporate culture is characterised by its ability to adapt quickly to our client's needs and requirements. This is achieved by bringing a sharper focus to the requirements of the client and striving to leverage cutting-edge technology to provide the highest levels of service through cost-efficient methods.

OUR PRODUCTS

Our products are also compliant to REACH (Registration Evaluation Authorization of Chemical Substances) and RoHS (Restriction of Hazardous Substances) directives have also been achieved with extensive research and development by skilled professionals to make sure our products adhere to global guidelines and standards.



BUILDING WIRES

EXTRA SAFE

Description

Zero Halogen Free Flame Retardant (ZHFFR) 105°C insulation

Flame and Fire - do not propagate

Non Toxic and Non Corrosive

- More than 101% Conductivity
- 100% Electrolytic Copper
- Low Acid Gas Generation
- High Critical Oxygen Index 100% Lead Free - Eco Friendly



White **Smoke**



Eco **Friendly**



Load **Capacity**

APPLICATION

These cables are best for domestic applications, conduit and fixed wiring, protected installations. These cables are ideal for Auditoriums, Hospitals, Hotels, Schools, Stadiums and all constructions for Public usage apart from residential and commercial properties. These cables are best for use in environments where high-performance, reliability and safety is a norm. These cables are also suitable for use in conduit and fixed, protected installation particularly suitable for wiring in fire and explosion prone areas, chemical factories, densely wired areas, public buildings, schools, hospitals, commercial complexes, theatres, etc.

TECHNICAL DATA

- Approvals** : FIA/TAC, IS 17048
- Cable Code** : XZ
- Voltage Grade**: 1100V
- Conductor** : Strands of electrolytic annealed plain copper are multi-drawn for uniformity of resistance, dimension and flexibility.
- Insulation** : EVA BASE POLYMER
- Colours** : Red, Black, Green, Yellow, White, Blue.
- Marking** : Marked as 'EXTRA SAFE'
- Packing** : 90 mtrs. Coils and packed in protective cartons.

PROPERTIES

- Temperature range : -15°C to +105°C
- Max. Short circuit temperature rating: 300°C
- The insulation does not burn rapidly
- It does not melt and drip
- Smoke is negligible, transparent, non-toxic
- The victims trapped in fire do not suffocate and this facilitate firefighting operations
- The cable has extended service life against the conventionally used cables
- The cable is also ozone resistant
- Self-extinguishing and flame retardant according to IS 10810 P - 61

Cable Design Parameters

Please add suffix (in place of 'xx') to complete the part numbers of these cables.

1. Red | 2. Black | 3. Green | 4. Yellow | 5. White | 6. Blue

* As per conductor class 2 of IS 8130

* As per conductor class 5 of IS 8130

Test Parameters for Assessment of Halogen

Test	Value	Test Method
pH	≥ 4.3	IS 17048
Conductivity	≤ 10 µs/mm	IS 17048
Chlorine and bromine expressed as content of HCL	≤ 0.5%	IS 10810 P - 59
Presence of fluorine	≤ 0.1%	IS 17048

Nominal Cross Sectional Area (Sq. mm)	Nominal Insulation Thickness (mm)	Number *Nominal Dia. of Strands	Approx. Overall Diameter (mm)	Max. DC Conductor Resistance at 20°C (Ω/km)	Current Rating (Amps)	
					Casing	Concealed
0.75*	0.6	11/0.3	2.4	26.00	10	9
1.0*	0.7	14/0.3	2.7	19.50	16	15
1.5*	0.7	22/0.3	3.0	13.30	21	19
2.5*	0.8	36/0.3	3.7	7.98	34	27
4.0**	0.8	56/0.3	4.1	4.95	38	31
6.0**	0.8	84/0.3	4.6	3.30	50	41

HOUSE WIRES

HDFR

Description

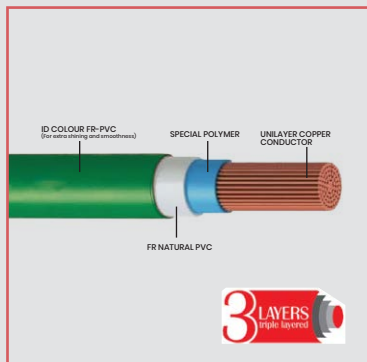
High Deficiency Flame Retardant HDFR and RoHS Compliant Cable with Unilay Conductor.

No Loose Contacts, No Broken Ends, No Sparking and Overheating

- REACH, ROHS, CE and CPR Compliant
- Super Flexibility
- 100% Electrolytic Copper
- More than 101% Conductivity



Unilayer Core **Technology**



3 Layer **Protection**



Energy Saver

APPLICATION

Suitable for wiring in all types of residential and commercial infrastructure, where fire and electrical safety is utmost important. Also suitable for use in conduit and for fixed, protected installation particularly suitable for wiring in fire and explosion prone areas, chemical factories, densely wired areas, public buildings, schools, hospitals, commercial complexes, theatres, etc.

TECHNICAL DATA

Approvals: IS 694 marked, FIA / TAC

Voltage Grade: Up to and including 1100V

Conductor: Thin strands of electrolytic copper are multi-drawn for uniformity of resistance, dimension and flexibility. The drawn strands are uni-laid with high precision and compacted. Thus forming a perfectly circular conductor which enables reduction in overall diameter for space saving in high density wiring.

Conductor Speciality: The strands do not get cut when stripping the insulation. The conductor offers perfect contact at pins, terminals and sockets. Thus, eliminating spot heating and sparking.

Insulation: Specially formulated heat resistant & flame retardant PVC insulation is used. The HR FR property retards the propagation of flame without compromising safety.

Colours: Green, Black, Red, Yellow, Blue, White

Marking: The cables are printed with marking of 'HDFR'

Packing: 90 mtr. coils packed in protective cartons

Cable Design Parameters

Please add suffix (in place of 'xx') to complete the part numbers of these cables.

1. Red | 2. Black | 3. Green | 4. Yellow | 5. White | 6. Blue

Test Parameters for Assessment of Halogen

Test	Value	Test Method
Limited Oxygen Index	>29%	IS 10810 P-58
Limited Temp. Index	>250 °C	IS 10810 P-64

Nominal Cross Sectional Area (Sq.mm)	Nominal Insulation Thickness (mm)	Number *Nominal Dia. of Strands	Approx. Overall Diameter (mm)	Max. DC Conductor Resistance at 20°C (Ω/km)	Current Rating (Amps)	
					Casing	Concealed
0.75	0.6	19/0.22	2.4	26.00	09	08
1.0	0.7	19/0.25	2.6	19.50	14	13
1.5	0.7	19/0.31	2.9	13.30	18	16
2.5	0.8	37/0.27	3.6	7.98	24	20
4.0	0.8	37/0.32	4.1	4.95	32	26
6.0	0.8	84/0.30	4.6	3.30	38	33

*Conductor as per IS 8130

Current Amp Comparison Chart

Nominal area of Conductor	Thickness of Insulation (Nom.)	Approx. Overall Diameter	Current carrying capacity comparison #2 cables, single phase		
			Normal PVC FR Wire	VR Kable HDFR Wire	VR Kable ExtraSafe Wire
Sq.mm	mm	mm	Casing Amps.	Casing Amps.	Casing Amps.
0.75	0.6	2.40	06	09	10
1.00	0.7	2.60	11	14	16
1.50	0.7	2.90	13	18	21
2.50	0.8	3.60	18	24	34
4.00	0.8	4.10	24	32	38
6.00	0.8	4.60	31	38	50

Standard Colour : Red,Black,Blue,Yellow,White and Green (For Earthing)

THE EXTRA SAFE ADVANTAGE

TEST	FUNCTION	TEST METHOD SPECIFICATION	TYPICAL VALUES	
			EXTRA SAFE WIRES	ORDINARY PVC INSULATED WIRES
Critical Oxygen Index	To determine percentage of oxygen required for supporting combustion of insulating material at room temperature	IS 10810 Part 58	More than 32%	23%
Temperature Index	To determine at what temperature normal oxygen content of 21 % in air will support combustion of insulating material	IS 10810 Part 64	More than 250°C	150°C
Acid gas generation	To ascertain the amount of Hydrochloric acid gas evolved from insulation of wire under fire	IS 10810 Part 59	Less than 20%	45-50%
Smoke density Rating	To determine density of smoke from the burning of insulating material	IS 13360	Maximum smoke density rating 50%	More than 60%

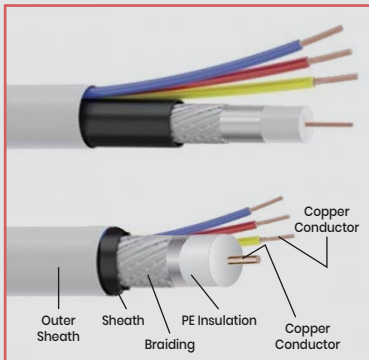
COMMUNICATION WIRES

CCTV WIRE

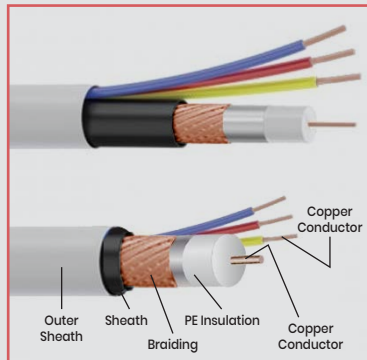
APPLICATION

These cables are specifically designed to transmit complete video frequency with minimum distortion or attenuation for security and surveillance.

This cable is offered in two variants viz., ALLOY BRAIDING (3+1) and COPPER BRAIDING (3+1) CCTV Camera cable.



Alloy Braiding



Copper Braiding



PROPERTIES

CCTV cables are designed to optimize the quality of video signals. The dense tin coated copper screen ensures complete elimination of EMI/RFI from video signals and also provides reduced DC resistance ground path. The multi stranded construction of video core offers better flexibility and reduced bending radius.

CABLE CONSTRUCTION

Screened Core for Video signal

Conductor: The central conductor is made of flexible fine wires tin coated electrolytic grade copper

Insulation: The insulation provided over the conductor is with high dielectric strength and low capacitance

Screen: Annealed tin coated copper braid screen, approx. 85% coverage

Sheath: Black colored PVC

POWER CORES

Conductor: Solid electrolytic grade annealed plain copper, 0.5 mm

Insulation: The insulation provided over the conductor is of high density polyethylene (HDPE)

Sheath: PVC

Cable Color: White.

Part No.	Cable Type	Cable Size (Sq. mm)	Approx. Cable Diameter (mm)	Power Core Colour
541,COPPER BRAIDING	CCTV Cable 3+1	3C + 1C x 0.25	6.0	RD, YL,BLUE
543,ALLOY BRAIDING	CCTV Cable 3+1	3C + 1C x 0.25	6.0	RD, YL,BLUE

COMMUNICATION WIRES

CO-AXIAL

GAS INJECTED PHYSICAL FOAM CO-AXIAL CABLES

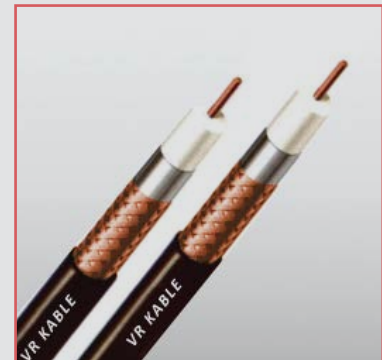
VR Kable co-axial cables, RG11 & Drop-RG6/RG59 used for Cable TV networks, are designed for optimum performance and value for money. The arithmetic is very simple. The cables offer higher bandwidth, so your customers can receive the maximum number of channels with a high level of picture and sound quality. This translates to more happy customers, larger cable TV networks and more profits for the cable operators.



RG59 CCS Conductor



RG6 Copper Conductor

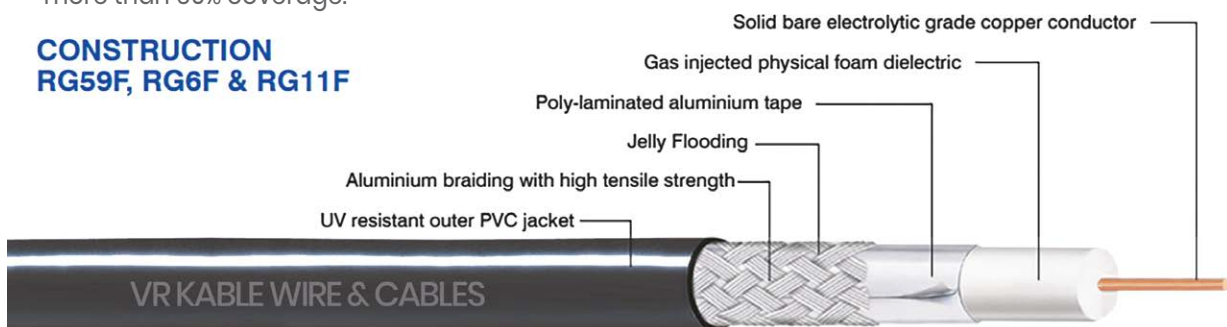


RG11 Copper Conductor

BRANCH & DROP CABLES

- Centre conductor of solid electrolytic grade 99.97% pure copper manufactured in house. Also RG11 cables are offered with Copper Clad Aluminum conductor and RG6 and RG59 are offered with Copper Clad Steel conductor.
- The First shield/Secondary conductor is made of a specially designed polyaluminium tape, bonded on the dielectric. The tape is applied with sufficient overlap longitudinally over the foam dielectric.
- The Second shield is of imported aluminium alloy wire braiding with high tensile strength and has more than 60% coverage.

CONSTRUCTION RG59F, RG6F & RG11F



- Use of Electrolytic Grade Tough Pitch (ETP) Pure Copper for RG59, RG6 & RG11, manufactured in house.
- Use of specially designed Al-Poly-Al bonded tape construction for secondary conductor for RG59, RG6 & RG11.
- Use of Imported Foam material in Gas Injected Foaming.
- Employs latest state-of-the-art Imported computerised Extrusion line with precision controls.
- In-house formulated & manufactured special grade PVC compound.
- Latest techniques used in Quality Control for raw material, In-Process & Final testing as per International Standards.
- Testing of each Bobbin / Coi on computerised Test equipment for Attenuation, Impedance & SRL upto 3GHz.
- Easy Identification for length with the help of non-contact Printing.

PARAMETERS	RG 59 F	RG 6 F	RG 11 F
A. CONSTRUCTION			
1. Inner conductor	Solid Bare CCS	Solid Bare Copper	Solid Bare Copper
2. Nominal Diameter	0.8	1.02	1.63
3. Dielectric.	Foam PE	Foam PE	Foam PE
4. Nominal Diameter (mm) Outer conductor	3.55	4.57	7.11
5. Second	A) Braid	A) Braid	A) Braid
6. Nominal Coverage (%)	60	60	60
7. Flooding Compound	Jelly	Jelly	Jelly
8. Jacket	PVC (Black)	PVC (White)	PVC (Black)
9. Nominal Diameter (mm)	6.2	7	10
10. Bending radius, Minimum (mm)	65	65	75

B. ELECTRICAL			
1. Inner conductor, Solid Copper Maximum Resistance (ohm/100m) at 20 C	NA	2.13	0.84
2. Nominal Capacitance (pt/mtr)	NA	53	53
3. Nominal Impedance (ohm)	NA	75	75
4. Nominal Velocity Ratio (%)	NA	85	85

C. ATTENUATION (@20 C)			
FREQUENCY MHz	db/100m Max.	db/100m Max.	db/100m Max.
55	6.73	5.20	3.15
83	8.04	6.20	3.87
187	11.81	9.15	5.74
211	12.47	9.50	6.23
250	13.45	10.50	6.72
3003	14.60	11.50	7.38
50	15.75	12.45	7.94
400	16.73	13.30	8.53
450	17.72	14.35	9.02
500	18.70	14.95	9.51
550	19.52	15.70	9.97
600	20.34	16.45	10.43
750	22.87	18.35	11.97
665	24.67	19.95	13.05
1000	26.64	21.45	14.27

PVC SUBMERSIBLE CABLE

3 CORE FLAT

APPLICATION

The PVC insulated and sheathed 3 core flat cables are mainly used in pump connections. They are also used in many industrial applications.

The sheath is specially made out to resist tough and difficult outdoor conditions & excellent resistant to water.

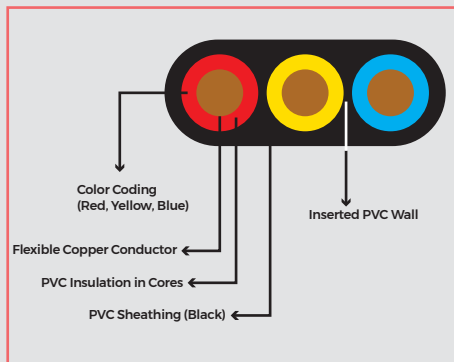
TECHNICAL DATA

Approvals: IS 694 marked, FIA/TAC

Core Colour: Red, yellow (center core), blue

Conductor: Electrolytic grade annealed copper

Sheath Color: Black



Voltage grade: Up to and including 1100v

Packing: Standard packing of 100 mtr. In coils. Longer length available on request.

VARIANTS AVAILABLE

Product Type	Specifications
PVC 75°C	IS 694, IS 8130 Class 2(1.5 & 16.00 Sq. mm)

Current rating conversion factor for deviating ambient temperature.

Multiply the current carrying capacity of the cable by the factors given below for various ambient temperature.

CABLE DESIGN PARAMETERS

Kindly complete the part numbers for these cables by adding the suffix (in place of 'y') for the cable type 1 – PVC 75°C,

Conductor Construction

Cross sectional area (Sq. mm)	No./Max. dia of strands (mm)	Conductor resistance at 20 °C (Ω/km) Max	Nom. Insulation thickness (mm)	Nominal sheath thickness (mm)	Approx. overall dimensions (W X H) (mm) +/- 0.5 mm	Current carrying capacity (Amp.)
1.5*	22/0.3	12.1	0.6	0.9	12.0 X 5.6	18
2.5*	36/0.3	7.41	0.7	1.0	13.0 X 6.2	24
4	56/0.3	4.95	0.8	1.0	15.3 X 7.1	28
6	84/0.3	3.30	0.8	1.1	19.2 X 8.4	36
10	140/0.3	1.91	1.0	1.4	24.2 X 10.4	48
16	126/0.4	1.21	1.0	1.4	29.0 X 12.4	64

*Conductor configuration offered for 1.5 Sq. mm-22/0.3 mm, 2.5 Sq. mm – 36/0.3 mm (max.), class 2 as per IS 8130

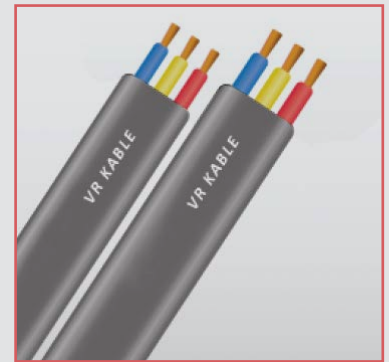
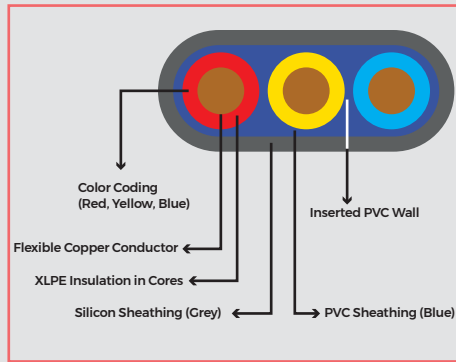
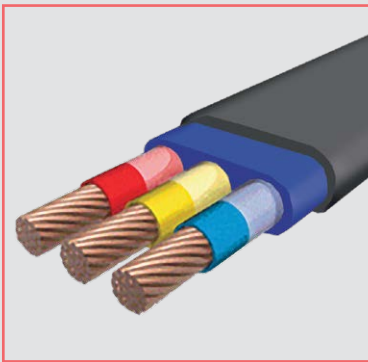
PVC SUBMERSIBLE CABLE

XLPE SILICON 3 CORE

These submersible flat cable are specially designed to provide distinguished tube like structure for the insulated cores. The wall between the cores perfectly separates them from coming in contact with each other and provides better mechanical and electrical strength compared to the traditional submersible flat cables. The knurling on the outer surface makes the cable more durable and provides improved abrasion resistance during handling and installation of these cables.

APPLICATION

These cables are mainly used in pump connection. Though they are mainly used to supply power to pumps, they are also used in industrial applications. These cables are specially manufactured keeping in mind the severe, tough and difficult conditions in which they are used.



TECHNICAL DATA

Conductor: Electrolytic grade annealed plain copper to EN 60228, Uniformly bunched to form a circular shape
 Insulation Cross-linked Polyethylene (XLPE)
 Core Colors : Red, yellow (center core), blue
 Sheath Color : GREY (knurling on the width on both sides)
 Knurling is a manufacturing process, typically conducted on a lathe, whereby a pattern of straight, angled or crossed lines is rolled into the material.
 Max. Operating Temperature: 105°C
 Test Voltage: 3 kV for 5 min.
 Voltage Grade: Up to and including 1100V
 Packing: Standard packing of 100mtr in coils. Longer length available on request.

VARIANTS AVAILABLE

XLPE/PVC : Class 2(1 to 10.00 Sq. mm) , XLPE insulation & PVC ST-2 sheath to IEC 60502-1

Current rating conversion factor for deviating ambient temperature

Multiply the current carrying capacity of the cable by the factor given below for various ambient temperature

Ambient Temperature (°C)	Derating Factor
25	1.16
30	1.11
35	1.06
40	1.00
45	0.95
50	0.88
55	0.82

Note: The dimensions and specifications may be changed without prior notice.

CABLE DESIGN PARAMETERS

Nominal Cross Sectional Area (Sq. mm)	No. of Strands / Max. Strands Dia. (mm)	Max. Conductor Resistance at 20°C (Ω/km)	Nominal Insulation Thickness (mm)	Nominal Sheath Thickness (mm)	Approx. Overall Dimensions (W x H) (mm) +/- 0.5 mm	Current Carrying Capacity (Amp.)
1.5	22/0.3	12.1	0.7	1.0	12.4 x 5.0	20
2.5	36/0.3	7.41	0.7	1.1	14.3 x 6.1	30
4	56/0.3	4.95	0.8	1.1	16.3 x 6.9	37
6	84/0.3	3.30	0.8	1.2	18.0 x 7.2	46
10	140/0.3	1.91	0.8	1.3	23.40 X 9.40	66
16	126/0.4	1.21	0.8	1.4	25.6 X 10.40	85

*Conductor configuration offered for 1.5 Sq. mm-22/0.3 mm, 2.5 Sq. mm - 36/0.3 mm (max.), class 2 as per IS 8130

WINDING WIRES

SUB WINDING WIRE

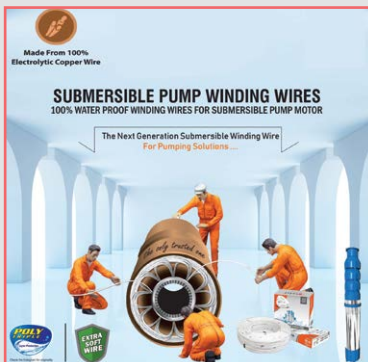
DESCRIPTION

We also offer poly wrapped winding wire commonly known as "Submersible Copper Winding Wire". The copper conductor is wrapped with thin polyester film and Biaxial oriented poly propylene (BOPP) films. A complete quality assurance testing by instruments covering all governing standards is available.

APPLICATION

Submersible Winding Wires are used in submersible pumps motors of all sizes for domestic and industrial application.

SIZE RANGE 0.50mm- 2.50 mm



SPECIFICATIONS IS 8783:1995.

INTRODUCTION

Submersible winding wires are the type of winding wires having close contact with water or different liquids. In fact many submersible motors are designed in such a way that windings are immersed in the water itself, which works as a cooling media while the pump is in operation. In early years, submersible winding wires have been developed with PVC insulation, which were having thicker insulations for getting required electrical properties.

Later, with the development of Poly wrapped wires, which has less insulation thickness and better properties. This reduced size of motors to great extent. We are manufacturing and supplying the poly wrapped VR KABLE brand wires to you since long time.

The continuous extrusion process with on line spark tester gives consistent 100 % checked quality of wire. It can give longer lengths as required by customer. This avoids joints in winding and reduces winding process scrap and integrity of the windings. The superior surface properties with extra softness give an excellent ease of slot filling, and shaping.

The sample motors wound and tested for long term tests found excellent operational results.

Applicable Standards: - NA - Guide lines and requirements taken from IS 8783- Part 4 Section 3

Comparison Test Analysis of POLYSTER & BOPP Wrapped

Sl No	Test	Spec Value are Per IS 8783 part 4	Poly wrapped POLYSTER & BOPP
1	Surface	Smooth/ Wrapped	Wrapped wavy
2	Dimension	As per Customer Specifications	OD ranges 0.300 to 0.900
3	Concentricity	-	Fully concentric insulation, due to wrapping
4	Softness of Wire	Fully Annealing	Slight harness due to wrapping and shrinking process
5	Volume Resistivity at 27°C (IS 10810 Pt-43), IS 5831	1 X 10 ¹⁶	1.8 - 2.2 X 10 ¹⁶
6	Volume Resistivity at 90°C (IS 10810 Pt-43), IS 5831	1 X 10 ¹³	6.5 - 7.5 X 10 ¹³
7	High Voltage test after 12 hours immersion in water	3.0Kv for 1 mints to pass	Passes Leakage current slight more due to air gap in wrapping
7.1	Shrinkage Test at 150°C for 15 Mints	4% Max	2 to 3.5%
7.2	Heat Shock Test	To pass at 150°C for 1 hrs	Passes- Layer separation forms at 170°C and HV/Megger mostly fails

SUB WINDING WIRE

Benefits

- Smooth insulation surface along with super soft annealed copper wire
- Very low co-efficient of friction, easy for slot insertion
- Less springiness, does not require hammering for shaping of coils.
- Longer lengths coils/ Reels possible
- Benefits of extra meter lengths/kg lesser weight compared to Poly Wrapped wire
- Fixed lengths coils are provided by meter counters.

Applications

All types of single phase, three phase submersible motor pumps. Conductor Dia range 0.40 to 2.60mm and Insulation covering range 0.30 to 1.00mm.

Safety and Precautions

Considering the fact that the insulation is softer than Poly wrapped wires, certain precautions must be taken during transit, handling usage of M. H. Classic Submersible Winding wires.

- Retain the original box packing till actual usage.
- Place the wire coils and wound coils on Rubber sheets to avoid damages.
- Use the provided bubble sheet to place coils – Do not place on corrugate boxes – they have staple pins that can damage the insulations.
- Examine and rectify for any sharp Objects/Sharp corners which can come in wire path during coiling.
- Do not give more force on the coils to fit in slots. Avoid any sort of damages during coil fitting.
- Use proper grade of insulation paper to guide the coils through slots
- Only use smooth tipped wooden strip to push wires in slots
- If required, apply a small quantity of lubricant oil in holding cloth / felt tensioner
- Search for sharp objects on working stations and avoid contact with wound coils motors
- Check the wooden/plastic slot fillers. It should not damage the wires while pushing.
- Ensure proper transit/packaging of wound stator.

Poly Wrapped Submersible Winding Wires Of Copper

SR. NO.	Nominal Conductor Diameter	Max Over all Diameter	Over all Diameter (BICIL-Standard)	Area of Conductor	Nominal Resistance	Elongation at Break	Elongation at Break (BICIL-Standard)
	mm	mm	mm	mm	per meter at 20°C	Minimum %	Minimum %
1	0.50	1.000	0.800	0.1964	0.0871	25	28
2	0.60	1.100	0.900	0.2828	0.0605	26	30
3	0.70	1.200	1.000	0.3849	0.0444	28	32
4	0.80	1.300	1.100	0.5027	0.0340	28	32
5	0.90	1.400	1.250	0.6363	0.0269	29	32
6	1.00	1.500	1.350	0.7855	0.0218	30	34
7	1.10	1.600	1.450	0.9505	0.0180	30	34
8	1.20	1.700	1.550	1.1311	0.0151	31	35
9	1.30	1.800	1.650	1.3275	0.0129	32	35
10	1.40	2.000	1.750	1.5396	0.0111	32	35
11	1.50	2.100	1.900	1.7674	0.0097	32	35
12	1.60	2.200	2.000	2.0109	0.0085	32	36
13	1.70	2.300	2.100	2.2701	0.0075	32	36
14	1.80	2.400	2.200	2.5450	0.0067	32	36
15	1.90	2.500	2.300	2.8357	0.0060	32	36
16	2.00	2.600	2.400	3.1416	0.0055	33	37
17	2.10	2.700	2.500	3.4641	0.0049	33	37
18	2.20	2.800	2.600	3.8018	0.0045	33	37
19	2.30	3.100	2.800	4.1553	0.0041	33	37
20	2.40	3.200	2.900	4.5245	0.0038	33	37
21	2.50	3.300	3.000	4.9094	0.0035	33	37

WINDING WIRES

ENAMELLED ROUND COPPER WINDING WIRE

DESCRIPTION

We offer a superior range of enamelled copper wires aiming to cater the wide variety of applications in the industry ranging from a common motor rewinding to most critical applications like in automobiles. Enamelled winding wire is a film insulated copper (or aluminium) electrical conductor used in form of coil windings in motors, transformers, generators and other electromagnetic equipments. When wound into coils, and energized, enamelled winding wire creates an electromagnetic field, which is utilized to generate the required output form of energy – viz electrical to mechanical (or vice versa) electrical to electrical, and electrical to magnetic energy.



Application

Super Enamelled Copper wires are mainly used in domestic equipment, pumps, motors, stabilizers, transformers, fans, auto electricals, heavy duty domestic appliances, motors, compressors, large motors and generators.

We Manufacture Enamelled Winding Wire from 23 No To 40 No

We have daily production of 1.5 ton to 2 ton

Diameters, Increase in Diameters and Resistance of Enamelled Round Copper Winding Wires based on IS 13730-0-1

Nominal Conductor Diameter		Conductor Tolerance mm	Grade 1		Grade 2		Grade 3		Conductor Resistance at 20 Degree. C for 1 meter (OHms)		
(SWG)	(mm)		Min. increase	Max. overall dia	Min. increase	Max. overall dia	Min. increase	Max. overall dia	Nominal	Max.	Min.
23.00	0.610	0.006	0.027	0.659	0.050	0.684	0.075	0.708	0.05848	0.06017	0.05687
24.00	0.559	0.006	0.025	0.605	0.047	0.629	0.071	0.652	0.06965	0.07178	0.06760
25.00	0.508	0.005	0.025	0.554	0.047	0.578	0.071	0.601	0.08434	0.08711	0.08168
26.00	0.457	0.005	0.024	0.501	0.045	0.523	0.067	0.544	0.1042	0.1075	0.1011
27.00	0.417	0.005	0.022	0.458	0.042	0.480	0.064	0.500	0.1252	0.1293	0.1212
28.00	0.376	0.005	0.021	0.417	0.040	0.435	0.060	0.454	0.1539	0.1595	0.1487
29.00	0.345	0.004	0.020	0.382	0.038	0.401	0.057	0.418	0.1829	0.1888	0.1772
30.00	0.315	0.004	0.019	0.349	0.035	0.367	0.053	0.384	0.2193	0.2269	0.2121
31.00	0.295	0.004	0.019	0.329	0.035	0.347	0.053	0.364	0.2501	0.2592	0.2414
32.00	0.274	0.004	0.018	0.306	0.033	0.323	0.050	0.339	0.8990	0.3011	0.2792
33.00	0.254	0.004	0.018	0.286	0.033	0.303	0.050	0.319	0.3374	0.3512	0.3242
34.00	0.234	0.004	0.017	0.265	0.032	0.281	0.048	0.296	0.3974	0.4149	0.3809
35.00	0.213	0.003	0.015	0.241	0.029	0.255	0.043	0.245	0.4798	0.4978	0.4625
36.00	0.193	0.003	0.014	0.219	0.027	0.232	0.039	0.222	0.5842	0.6081	0.5618
37.00	0.173	0.003	0.013	0.197	0.025	0.210	0.036	0.197	0.7271	0.7596	0.6967
38.00	0.152	0.003	0.012	0.174	0.023	0.186	0.033	0.171	0.9418	0.9888	0.8982
39.00	0.132	0.003	0.011	0.152	0.021	0.162	0.030	0.167	1.2496	1.3192	1.1841
40.00	0.122	0.003	0.010	0.141	0.019	0.151	0.028	0.154	1.4623	1.5502	1.3811

SOLAR CABLES

DESCRIPTION

Solar cable is the interconnection cable used in photovoltaic power generation. A solar cable interconnects solar panels and other electrical components in the photovoltaic system. Solar cables are designed to be UV resistant and weather resistant. It can be used with in a large temperature range and are generally laid outside. Sizes of solar cable from 0.50SQMM to 240SQMM. SOLAR Cable is available in three types of varieties.

Electrical Parameters

- Voltage Rating : AC -0.6 / 1.0 kV
- Test Voltage : AC 6 kV / DC 10kV (15 min.)
- Max. Permissible Operating Voltage in AC Systems: 0.7 / 1.2 kV Max. Permissible Operating Voltage in DC System
- Max. PV System Voltage : DC upto 2.0 kV possible
- Spark Test : 6000 Vac (8400 Vdc)



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Cable Construction

Conductor: Fine Wire Tinned Copper Conductor according to BS EN 60228:2005 cl. 5.

Insulation: UV resistant, cross linkable, halogen free, flame retardant compound for core insulation.

Core Identification: Red, Black or Natural.

Sheath: UV resistant, cross linkable, halogen free, flame retardant compounding for Sheath over insulation.

Cable Colour: Black.

Cable Design Parameters

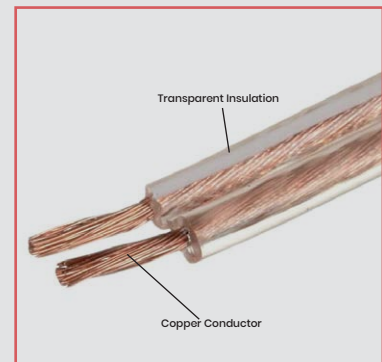
Nominal area of Conductor	Overall Diameter mm (Approx)		Current Carrying Capacity Amp			Max. Conductor Resistance per KM at 200C
	As per Standard 2 Pfg 1169	As per Standard 2 Pfg 1990 and EN50618	In Air Single Cable	On Surface Single core	On Surface Two Cables Adjacent	
sq.mm	mm	mm	amp	amp	amp	ohms
2.50	5.0	6.5	41	39	33	8.210
4.00	5.5	7.0	55	52	44	5.090
6.00	6.0	7.5	77	67	57	3.390
10.00	7.0	8.6	98	93	79	1.950
16.00	8.0	9.9	132	125	107	1.240
25.00	10.5	11.4	176	167	142	0.795

SPEAKER CABLES

Introduction

VR Kable is India's largest and leading manufacturer of electrical goods, now going to introduce a new line of Speaker Cables. Speaker Cables are used to make connection between loudspeaker and audio amplifiers within various sound instruments. In Today's constructions, the new building code (like for Airports, Railway platforms, Auditoriums, Offices, High-rise apartments and Hospitals etc.). Installation of speaker cables ensure a clear and distortion free voice with very low dB loss.

VR Kable twin parallel speaker cables are manufactured with multi-wire, bright annealed flexible bare electrolytic grade copper conductor. Each core is designed for easy identification with insulation of specially formulated and in-house manufactured FR (Fire Retardant) PVC compound with high value of oxygen and temperature index.



Technical Requirement

Conductor		Insulation			
Size (sq.mm)	Max. Conductor Resistance at 200C (0hm/km)	Thickness of Insulation (in mm)	Width (in mm)	Height (in mm)	Web Dimension (w x h)
1.0	21.40	0.70	6.05	2.80	0.5 x 0.4
1.5	13.50	0.70	6.25	2.90	0.5 x 0.4
2.5	7.98	0.75	7.40	3.44	0.5 x 0.4

Construction Details:

The twin parallel cable have the following construction with different coloring of insulation.



Quality is not an *Act*
It's a **Habit**,
That *We* have..

Contact Us.....

Manufactured By:
VR Kable India Pvt. Ltd.
M-54, Sec. 5, Bawana Indl. Area,
Near Vardhman Mall, Delhi-110039
Customer Care No.: +91 80489 26751 | 93500 21472
Email: sales@vrkable.com | vrkable123@gmail.com
Website: www.vrkable.com | www.vrkable.in

