Vinay

WIRES & CABLES

3T TRIED • TESTED • TRUSTED

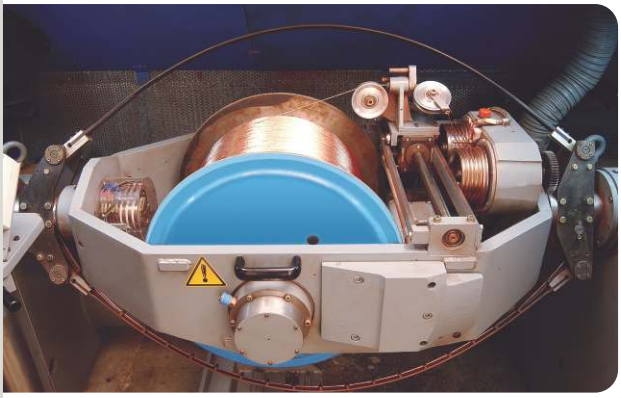
Wires that Secure

Wires that Secure Wires that Secure

TAC FIA NTH CPRI ERDA IS: 694 CM/L - 7425572 CE ISO 9001-2008 RoHS

QUALITY
YOU CAN RELY ON

8 Line Wire Drawing Machine



Bunching Machine

Automatic Coiling Machine

Wires and cables do more than just conduct electricity. Properly structured wires and cables impart security and confidence. Quality constructed wires and cables save lives specially in time of emergencies. And quality is the single most important factor that one company has been living up to. Vinay.

At Vinay, pursuit for quality starts right from the raw material stage. Prime grade materials like PVC and Copper ensure smooth functioning of the wires and cables and deliver long lasting performance. Vinay Wires and Cables are designed to be fire resistant. Pure Electrolytic Tough Pitch Copper is at the heart of the cable to ensure total conductivity and smooth functioning.

Good quality products can only perform when backed by the proper human ability that puts them together. Workers are continuously trained and made aware of modern day quality principles so as to ensure proper construction of the wires and cables and thus it's proper functioning. Fully functional R & D department along with a full fledged I. S.I. laboratory is the quality backbone of Vinay products.

At Vinay, the process of designing, manufacturing and suppling wires and cables confirm to very stringent mechanical and electrical parameters. Vinay also employs latest infrastructure and world class technology for manufacturing and testing the products like:

- On-line multi wire drawing and annealing.
- Double twist bunching.
- High speed dual extrusion.
- Automatic on-line critical diameter-controller.
- Automatic high speed coiling.
- On-line spark testing.

Considering this, it hardly came as a surprise to the industry when Vinay Wires and Cables Unit was awarded the ISO 9001:2008 and BIS CERTIFICATION, that re-enforces the world class quality in addition to other approvals like FIA, TAC, NTH, CPRI, ERDA and RoHS.

Moreover Vinay Wires & Cables have also been accredited by CE certification. CE marking ensures consumer's safety and enhances global technical harmonizing.

CERTIFICATE OF COMPLIANCE

ICS

This is to certify that the QUALITY MANAGEMENT SYSTEM of

V. K. INDUSTRIES

G-8, O. I. D. C, Udyog Nagar Industrial Estate, Village Ringanwada, Daman – 396 210, Union Territory Of Daman And Diu, India.

has been assessed by International Certification Services Pvt. Ltd. and registered as complying with the requirements of the following International Standard:

ISO 9001:2008

The Quality Management System applicable to:

Scope: Manufacturing Of PVC Insulated Wires And Cables Upto 1100 V And Marketing Of MCB And MCB Distribution Boards.

Registration No. : RQ01/4768
Registered Date : 13th January, 2007.
Reassessment Date : 02nd February, 2010.
Issue Date : 05th February, 2010.
Expiry Date : 14th January, 2013.

JAS-ANZ

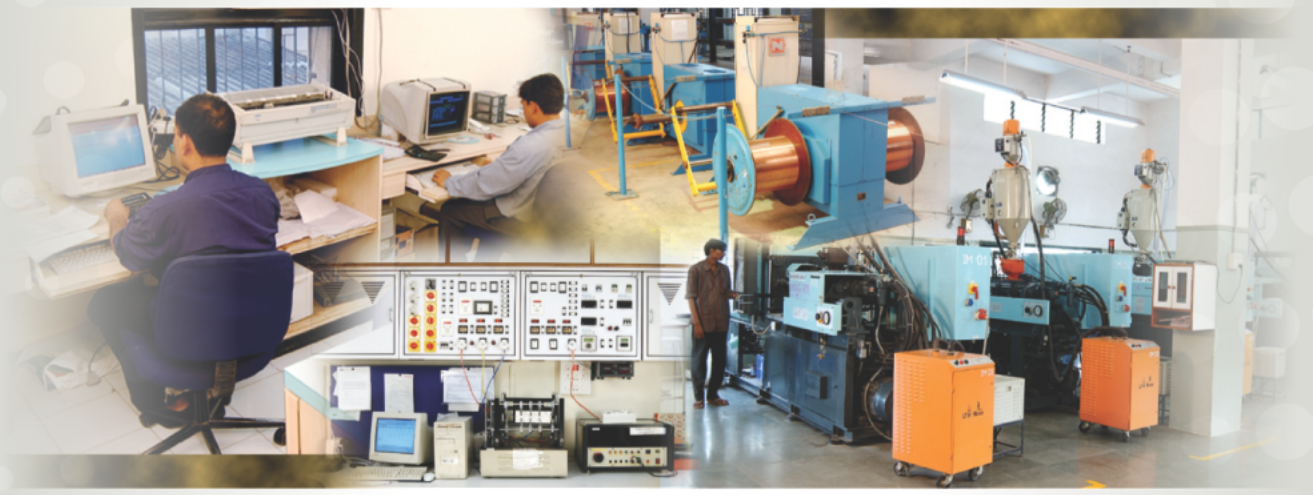
Director
International Certification Services

Accredited by Joint Accreditation System of Australia and New Zealand

Validity of this certificate is based on periodic audits of the management system defined by the above scope and is contingent upon prompt, written notification of significant changes to the management system and/or its components thereof shall be immediately communicated to ICS.
Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the above certification body.

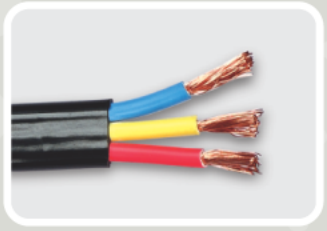
International Certification Services Pvt. Ltd. E-7, Chand Society, Juhu Road, Juhu, Mumbai – 400 049, India

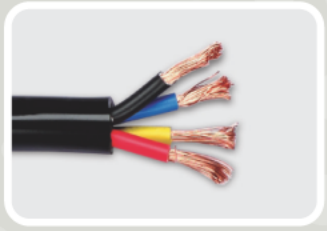
THE SUCCESSFUL CONNECT



Vinay Wires and Cables are brought to you by Vinay - a group with over 30 years of hard-core experience in manufacturing of electrical accessories. With multi location plants, state of art technology and a work force of over 1000 employees, Vinay is geared up to be a leading player in wires and cables as they are in the category of regular switches and modular switches wherein, it's portfolio consists of well known ranges like Corum, Carol, Candy, Camry, Civic, Classy, Cozy, Corsa, Color, Cadila and many more. With a distribution network of over 5000 outlets across the country, Vinay ensures that its quality products are available in any and every important part of the country.

PRESENTING THE RANGE





Presented here is the extensive range of Vinay Wires and Cables. Products that meet strict safety and quality standards. Resulting in a consumer preference that is today the hallmark of the Vinay brand.

- Genuine FR (Fire Resistant) Cables.
- Stranded FR (Fire Resistant) Cables.
- Flame Retardant Low Smoke (FRLS) Cables.
- Zero Halogen Flame Retardant Low Smoke Cables.
- Unibunch FR Cables.
- Flat Cables for Submersible Pumps upto 1100V.
- Round Multi-Core Flexible Cables upto 1100V.
- CAT 5e UTP LAN Cables.
- CAT 6 GIGABIT UTP LAN Cables.
- T. V. Co-Axial Cables.

TAC FIA NTH CPRI ERDA CM/L - 7425572 9001-2008 RoHS

Vinay Wires and Cables meet additional requirements of international standards like IEC - 332-1, ASTM D - 2863, BS EN 60811 -1 -1.

Genuine FR (Fire Resistant) Cables.

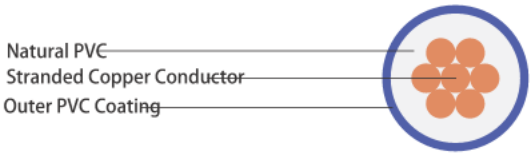
Vinay Genuine FR Cables are produced from **Pure Electrolytic Tough Pitch Copper** having more than 99.97% purity. The individual copper strands are drawn on the most modern multi-wire drawing and on-line annealing machine with bright and smooth copper surface imparting superior flexibility. Subsequently the cables are bunched together with appropriate lay length with minimum resistance. The bunched conductors are insulated on dual extrusion line using real "FR" grade PVC compound. PVC by nature is a flame retardant. But Vinay Genuine FR Cables can withstand upto 30% oxygen and 300°C temperature unlike other ordinary

Genuine FR (Fire Resistant) Cables upto and including 1100V.

						Additional Properties	
Number / Nominal Diameter of Wire	Nominal Area of Conductor	Nominal Thickness Insulation	Approx Overall Diameter	Maximum Conductor Resistance at 20°C	Current Rating 2 Cables Single Phase AC/DC	Critical Oxygen Index	Temp. Index
No./mm	sq.mm	mm	mm	Ohms/km.	Amps	%	°C
16/0.20	0.50	0.60	2.20	39.00	4.00	>30	>300
24/0.20	0.75	0.60	2.40	26.00	7.00	>30	>300
14/0.30	1.00	0.70	2.80	18.10	13.00	>30	>300
22/0.30	1.50	0.70	3.10	12.10	16.00	>30	>300
36/0.30	2.50	0.80	3.80	7.41	22.00	>30	>300
56/0.30	4.00	0.80	4.40	4.95	30.00	>30	>300
84/0.30	6.00	0.80	5.00	3.30	38.00	>30	>300
140/0.30	10.00	1.00	6.70	1.91	51.00	>30	>300
224/0.30	16.00	1.00	8.20	1.21	69.00	>30	>300
196/0.40	25.00	1.20	9.70	0.780	91.00	>30	>300
276/0.40	35.00	1.20	11.50	0.554	105.00	>30	>300
396/0.40	50.00	1.40	13.00	0.386	125.00	>30	>300

Stranded FR (Fire Resistant) Cables.

Consistent and uniform stranding of copper wire plays an important role in the functioning of the cable. In fact, when copper strands are not wound properly this can result in short-circuits leading to fires. Vinay Stranded FR Cables are wound on advanced winding equipment and use 99.97% **Pure Electrolytic Tough Pitch Copper** having more than 100% conductivity.



Stranded FR (Fire Resistant) Cables upto and including 1100V.

						Additional Properties	
Number / Nominal Diameter of Wire	Nominal Area of Conductor	Nominal Thickness Insulation	Approx Overall Diameter	Maximum Conductor Resistance at 20°C	Current Rating 2 Cables Single Phase AC/DC	Critical Oxygen Index	Temp. Index
No./mm	sq.mm	mm	mm	Ohms/km.	Amps	%	°C
1/1.13	1.00	0.70	2.70	18.10	13.00	>30	>300
3/0.80	1.50	0.70	3.20	12.10	16.00	>30	>300
3/1.04	2.50	0.80	3.90	7.41	22.00	>30	>300
7/0.85	4.00	0.80	4.40	4.61	30.00	>30	>300
7/1.04	6.00	0.80	5.00	3.08	38.00	>30	>300
7/1.35	10.00	1.00	6.50	1.83	51.00	>30	>300

Fire Retardent Low Smoke (FRLS) Cables.

During fires in ordinary cables, PVC material emit a lot of dark smoke. This endangers lives and hampers rescue attempts during emergencies. Vinay FRLS however emit only low smoke and that too only after a long period of time. This prolongs visibility and helps in saving lives. This is possible due to the fact that Vinay FRLS Cables are constructed from special material that meet

Fire Retardent Low Smoke Cables upto and including 1100V.

						Additional Properties		
Number / Nominal Diameter of Wire	Nominal Area of Conductor	Nominal Thickness Insulation	Approx Overall Diameter	Maximum Conductor Resistance at 20°C	Current Rating 2 Cables Single Phase AC/DC	Critical Oxygen Index	Smoke Density Rating	HCL Gas Evolution
No./mm	sq.mm	mm	mm	Ohms/km.	Amps	%	%	Mg/Gm
14/0.30	1.00	0.70	2.80	18.10	13.00	>32	<45	<170
22/0.30	1.50	0.70	3.10	12.10	16.00	>32	<45	<170
36/0.30	2.50	0.80	3.80	7.41	22.00	>32	<45	<170
56/0.30	4.00	0.80	4.40	4.95	30.00	>32	<45	<170
84/0.30	6.00	0.80	5.00	3.30	38.00	>32	<45	<170
140/0.30	10.00	1.00	6.70	1.91	51.00	>32	<45	<170

Zero Halogen Flame Retardant Low Smoke (ZHFRLS) Cables.

Many flame retardant cables are based on halogen containing chemicals. Halogens can be present as part of the insulation material that is PVC or may be component of the fire retardant mechanism. When burned these materials liberate acidic gases such as hydrochloric acid which, when in contact with electrical or electronic components, can cause expensive corrosion damage. The cost of this secondary damage can far exceed those attributed to flame damage, particularly when associated with human beings. Also toxic fumes emitted during a fire are always a concern. Specially in wire and cable industry they are of particular importance as they may hamper the safe escape of people in an emergency, or incapacitate personnel engaged in vital operations.
Vinay ZHFRLS cables are designed not to release acidic gases or toxic fumes.

Zero Halogen Flame Retardant Low Smoke Cables upto and including 1100V.

						Additional Properties		
Number / Nominal Diameter of Wire	Nominal Area of Conductor	Nominal Thickness Insulation	Approx Overall Diameter	Maximum Conductor Resistance at 20°C	Current Ratting 2 Cables Single Phase AC/DC	Critical Oxygen Index	Smoke Density Rating	HCL Gas Evolution
No./mm	sq.mm	mm	mm	Ohms/km.	Amps	%	%	Mg/Gm
14/0.30	1.00	0.70	2.80	18.10	13.00	> 32	< 15	0.00
22/0.30	1.50	0.70	3.10	12.10	16.00	> 32	< 15	0.00
36/0.30	2.50	0.80	3.80	7.41	22.00	> 32	< 15	0.00
56/0.30	4.00	0.80	4.40	4.95	30.00	> 32	< 15	0.00
84/0.30	6.00	0.80	5.00	3.30	38.00	> 32	< 15	0.00
140/0.30	10.00	1.00	6.70	1.91	51.00	>32	<15	0.00

Unibunch FR Cables.

Currently, one of the few manufacturers of these kind of cables, Vinay's Unibunch design ensures it's construction by using uniform strands of **Pure Electrolytic Tough Pitch Copper** having more than 99.97% purity, bright annealed uni-laid and compressed in Hi-tech machines. If the copper conductors are having higher lay length or loose bunching the current carrying capacity will be reduced and will have inductive losses like short circuit etc. This is not so with Vinay Unibunch Wires thereby giving consistency of conductivity, uniformity of dimension and flexibility of cables.

Unibunch FR Cables have specialties that are not found in ordinary bunched conductor cables. They are:

1. Perfectly circular and compact conductor.
2. Space saving in high density wiring area.
3. No breakage of individual strands at the time of removing insulation.
4. Easy to connect to the pins, terminal and sockets.
5. Eliminates spot heating and sparking.

Unibunch FR Cables upto and including 1100V.

						Additional Properties	
Number / Nominal Diameter of Wire	Nominal Area of Conductor	Nominal Thickness Insulation	Approx Overall Diameter	Maximum Conductor Resistance at 20°C	Current Ratting 2 Cables Single Phase AC/DC	Critical Oxygen Index	Temp. Index
No./mm	sq.mm	mm	mm	Ohms/km.	Amps	%	°C
19/0.26	1.00	0.70	2.75	18.10	14.00	> 30	> 300
19/0.32	1.50	0.70	3.20	12.10	18.00	> 30	> 300
37/0.29	2.50	0.80	3.80	7.41	24.00	> 30	> 300
37/0.37	4.00	0.80	4.40	4.61	32.00	>30	>300

Flat Cables For Submersible Pumps.

Vinay Flat Cables are manufactured for critical space requirement, immersed protection in water under specified conditions, like protection against rainwater and against access of small forcing particle. Produced from **Pure Electrolytic Tough Pitch Copper** having more than 99.97% purity Vinay Flat Cables are drawn, on-line annealed and bunched on automatic machines. The conductors are insulated with a special grade of PVC compound on modern dual extrusion line to meet the insulation quality requirement for demanding needs of submersible pump applications. The cores are laid flat and sheathed with highly abrasion resistant PVC compound.

3 Core Flat Submersible Cables upto and including 1100V.

	Conductor		Insulation		Sheath			
Code No.	No./ Diameter of Wire	Nominal Area of Conductor	Nominal Thickness	Nominal Core Diameter	Nominal Thickness	Size (W X T)	Maximum Conductor Resistance at 20°C	Current Carrying Capacity @40°C
	No./mm	sq.mm	mm	mm	mm	mm	Ohms/Km.	Amps
F3223	22/0.30	1.50	0.60	3.10	0.90	11.5 X 5.40	12.10	16.00
F3363	36/0.30	2.50	0.70	3.80	1.0	13.80 X 6.15	7.41	22.00
F3563	56/0.30	4.00	0.80	4.40	1.10	15.80 X 6.80	4.95	30.00
F3843	84/0.30	6.00	0.80	5.00	1.10	17.00 X 7.30	3.30	38.00

Telephone Cables.

Vinay Telephone Cable are made of **Pure Electroytic Solid Bare annealed Copper** and insulated with special grade of insulating compound,carefuly paired with suitable lay length and group twisted together in such a way that the crosstalk is minimized.The outer jacket is sheatthed with "FR" grade PVC compound. A nylon rip cord is also provided for easy removal of outer sheath without damaging the the individual pairs/cores.The Cables generally confirm to specification ITDS/WS 113 C.

Telephone Cable (0.40mm Annealed Bare Copper).

Code No.	No. of Pair	Approx Outer	C.R. at 20°C Diameter	Mutual Capacitance	Capacitance Unbalance pF / 100 m. max.	
No.	Nos.	mm	Ohm/Km	nF / Km Max.	Pair to Pair	Pair to Ground
T 0140	1	3.00	137.30	50	250	300
T 0240	2	3.50	137.30	50	250	300
T 0340	3	4.20	137.30	50	250	300
T 0440	4	5.30	137.30	50	250	300
T 0540	5	6.00	137.30	50	250	300
T 1040	10	8.50	137.30	50	250	300
T 2040	20	12.50	137.30	50	250	300

Telephone Cables.

Vinay Telephone Cables are made of **Pure Electrolytic Tough Pitch Copper,** annealed, tinned and insulated with special grade of insulating compound, carefully paired with suitable lay length and group twisted together in such a way that the crosstalk is minimized. The cores are helically wrapped with polyester tape to retain round shape and sheathed with 'FR' grade PVC compound. A nylon rip cord is also provided for easy removal of outer sheath without damaging the individual pairs/cores. The cables generally confirm to specification ITD S/WS 113C.

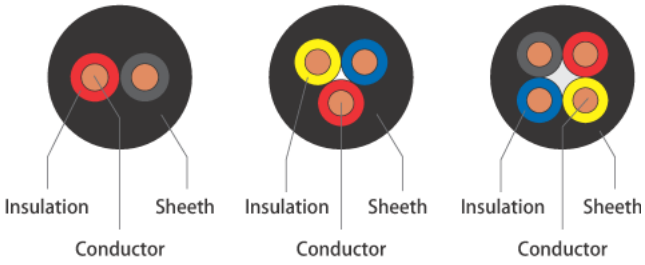
Telephone Cable (0.50mm Annealed Tin Copper).

Code No.	No. of Pair	Approx Outer Diameter	C.R. at 20°C	Mutual Capacitance	Capacitance Unbalance pF / 100 m. max.	
No.	Nos.	mm	Ohm/Km	nF / Km Max.	Pair to Pair	Pair to Ground
T 0150	1	3.00	90.00	50	250	300
T 0250	2	3.50	90.00	50	250	300
T 0350	3	4.20	90.00	50	250	300
T 0450	4	5.30	90.00	50	250	300
T 0550	5	6.00	90.00	50	250	300
T 1050	10	8.50	90.00	50	250	300
T 2050	20	12.50	90.00	50	250	300

Round Multi-Core Flexible Cables.

Vinay Round Multi-Core Flexible Cables are produced from **Pure Electrolytic Tough Pitch Copper** having more than 99.97% purity. The individual copper strands are drawn on the most modern multi-wire drawing and on-line annealing machine with bright and smooth copper surface imparting superior flexibility.

Subsequently they are bunched together with appropriate lay length with minimum resistance. The bunched conductors are insulated on dual extrusion line using 'FR' grade PVC compound to form the individual cores. The cores are carefully twisted together with proper lay length on laying machine. The twisted cores are then sheathed with superior quality PVC compound imparting the tough mechanical properties.



Round Multi-Core Flexible Cables upto and including 1100V.

			Thickness of Sheath (ts)			Overall Dimensions, Max				
Nom. Area of Conductor	Size of Conductor	Th. of Insulation (ti)	2-Core	3-Core	4-Core	2-Core	3-Core	4-Core	Max. Conductor Resist. at 20° C	Current Rating
mm	mm	mm	mm	mm	mm	mm	mm	mm	Ohm/km	Amps.
0.50	16/0.20	0.60	0.90	0.90	0.90	7.20	7.60	8.20	39.00	4.00
0.75	24/0.20	0.60	0.90	0.90	0.90	7.80	8.20	8.80	26.00	7.00
1.00	14/0.30	0.60	0.90	0.90	0.90	8.20	8.60	9.20	18.10	13.00
1.50	22/0.30	0.60	0.90	0.90	0.90	8.80	9.20	10.00	12.10	16.00
2.50	36/0.30	0.70	1.00	1.00	1.00	10.50	11.00	12.00	7.41	22.00
4.00	56/0.30	0.80	1.00	1.10	1.10	12.00	13.00	14.00	4.95	30.00
6.00	84/0.30	0.80	1.10	1.10	1.20	13.50	14.50	15.50	3.30	38.00

Speaker Wires

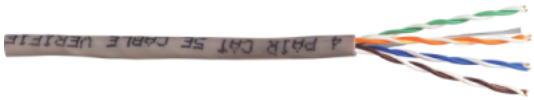
Vinay Speaker Wires are widely used for various audio applications. It is constructed using Pure Electrolytic Touch Pitch Flexible Copper Conductor on one side and tinned copper conductor on other side for superior result in audio systems. The copper conductor is finally insulated with special type of Transparent PVC.

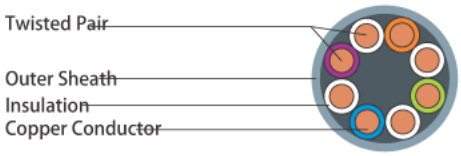
Code No.	Area	Size	Aprrox. Overall Dia. (W x T)
	sq. mm.	No/mm	mm.
SWT1620	0.50	16/0.20	6.0 X 3.0

CAT 5e UTP LAN Cables.

Vinay UTP CAT 5e Cables are high performance cables used increasingly for modern computer network systems. These cables form the backbone of modern data transmission in commercial environments, industries and building. In the last few years CAT 5 cables have become the de facto media choice of networking.

Vinay LAN Cables are suitable for voice, data, video and low voltage control. It is suitable for all LAN topologies including horizontal and vertical distribution of Plenum and Riser. The cables generally confirm to specification ANSI/EIA/TIA 568A ISO/IEC 11801.





Physical Parameters

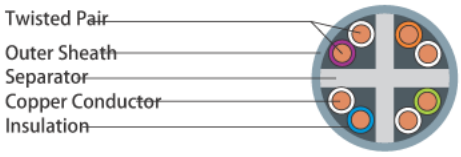
Conductor	:	Solid Bare Copper
Nom. Conductor Diameter	:	24 AWG (0.50 mm)
Insulation	:	Special grade PE
COLOUR CODE		
Pair - 1	:	White - Blue
Pair - 2	:	White - Orange
Pair - 3	:	White - Green
Pair - 4	:	White - Brown
Outer Jacket	:	PVC
Nom. Overall Diameter	:	5.80 mm
Jacket Colour	:	Grey

Electrical Parameters

DC Resistance @ 20° C (Max.)	:	9.38 ohm/100 M
Capacitance Unbalance Pair to Ground (Max.):330 pF/100 M		
Mutual Capacitance (Max.)	:	5.60 nF/100 M
Characteristics Impedance	:	100 +/ -15 ohm.
Nominal Velocity of Propagation	:	66 %
Delay Skew (Max.)	:	45 ns
Propagation Delay @ 20° C,MHZ	:	538 ns/100 M

CAT 6 GIGABIT UTP LAN Cables.

Vinay CAT 6 UTP cables are high performance cables used increasingly for modern computer network systems. These cables form the backbone of modern data transmission in commercial environments, industries and building. Vinay CAT 6 UTP cables are suitable for extended bandwith for high speed voice/video data, reduces noise level, for outer use. In Vinay CAT 6 cables, conductor is made of Pure Electrolytic Tough Pitch Solid Bare Copper and insulated with special grade of Polyethylene. The individual cores are carefully twisted together with varying lay-length and 4 pairs are twisted around with separator to reduce the crosstalk. The outer jacket is extruded with specially formulated PVC.The cables generally confirm to specification : ANSI/EIA/TIA 568B 2.1 ISO/IEC 11801.



Physical Parameters

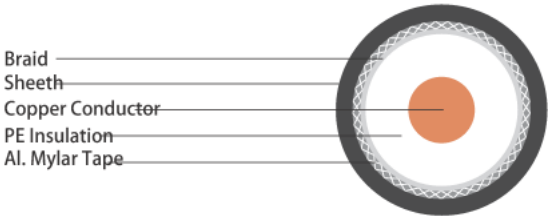
Conductor	:	Solid Bare Copper
Nom. Conductor Diameter	:	23 AWG (0.58 mm)
Insulation	:	Special grade PE
Pair Separator	:	Special grade PE
COLOUR CODE		
Pair - 1	:	White - Blue
Pair - 2	:	White - Orange
Pair - 3	:	White - Green
Pair - 4	:	White - Brown
Outer Jacket	:	PVC
Nom. Overall Diameter	:	6.0 mm
Jacket Colour	:	Grey

Electrical Parameters

DC Conductor Resistance at 20° C (Max.)	:	6.53 Ohm/100 M
Capacitance Unbalance (Max.) Pair to Ground:330 pF/100 M		
Mutual Capacitance (Max.)	:	5.60 nF/100 M
Characteristics Impedance	:	100 +/- 15 Ohm.
Nominal Velocity of Propagation	:	66 %
Delay Skew (ns) (Max.)	:	45
Propagation Delay @ 20° C, MHZ	:	550 ns/100 M
Cable Attenuation, 100 MHZ	:	20.5 dB/100 M
Return Loss (> 100m)	:	23 dB

Vinay Co-Axial Cables are technologically advanced and are being introduced for the first time in India. It's ideal combination of electrical and physical properties makes it the preferred choice for variety of applications in cable television network by public and private operators in India and abroad.

In Vinay Co-Axial Cables, the conductor is made of **Pure Electrolytic Tough Pitch Copper** which ensures better signal transmission. The conductor is then insulated with special imported polyethylene foaming compound injected with nitrogen gas, which is superior than chemical foam. The secondary conductor is made of specially designed poly-aluminium tape bounded with sufficient overlap on dielectric. The second shield is of aluminum braiding with high tensile strength and has more than 60% coverage. The outer jacket that has specially formulated FR PVC, is ultra violet and moisture resistant in nature, for robust performance and long life. The entire process passes through the sophisticated testing facility.



Physical Parameters

Parameters	Type of Cable			
	RG-6	RG-59	RG-11	RG-6 (CCS)
Inner Conductor	Annealed bare copper	Annealed bare copper	Annealed bare copper	Copper Coated Steel
Nom. Dia of conductor (mm)	1.02	0.8	1.63	1.02
Insulation Type	PE Foam	PE Foam	PE Foam	PE Foam
Nom. Dia of Insulation (mm)	4.55	3.65	7.10	4.55
First Shield	Bonded AL Tape	Bonded AL Tape	Bonded AL Tape	Bonded AL Tape
Second Shield	Aluminium Braiding	Aluminium Braiding	Aluminium Braiding	Aluminium Braiding
Braiding Coverage (%)	60	60	60	60
No. of Braiding	64	64	96	64
Dia. of Braiding (mm)	0.15	0.15	0.15	0.15
Dia. over Braiding (mm)	5.20	4.24	7.70	5.20
Outer Jaket	PVC (Black)	PVC (Black)	PVC (Black)	PVC (Black)
Nom. Overall Dia.(mm)	7.0	6.0	9.0	7.0

Electrical Parameters

Parameters	Type of Cable			
	RG-6	RG-59	RG-11	RG-6 (CCS)
Max. conductor resistance at 20° C (Ohm/100 m)	2.10	3.70	0.80	12.10
Nom. Capacitance (Pf/m)	53	53	53	53
Dielectric Strength (KV)	>1	>1	>1	>1
Characteristic Impedance (Ohm)	75	75	75	75
Velocity of Propagation (%)	85	85	85	85
Minimum Bending radius (mm)	65	60	75	60

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