Range available

FR Cables

Twisted FR Cables

FRLSH Cables

Multi-core Round Cables

Multi-core Flat Cables

Speaker Cables

Telephone Cables

Co-Axial Cables

CAT 6 Cables

CCTV Cables

Major Approvals & Supplied Projects

- DGS&D • Military Engineer Services • Airport Authority of India • Power Grid Corporation of India
- Tata Steel • IVRCL Infrastructures & Projects Ltd. • Odisha Power Transmission Corporation Limited
- Nuclear Power Corporation of India • Cochin International Airport • Kochi Metro • HCL Technologies
- Apollo Tyres • Siemens • Karnataka Power Corporation • Bharat Heavy Electricals Limited
- BEML Limited • Bharat Petroleum • Kerala State Electricity Board • DLF • Sobha • Puravankara
- Asset homes • Hoysala Projects Pvt. Ltd. • Tulsi Developers

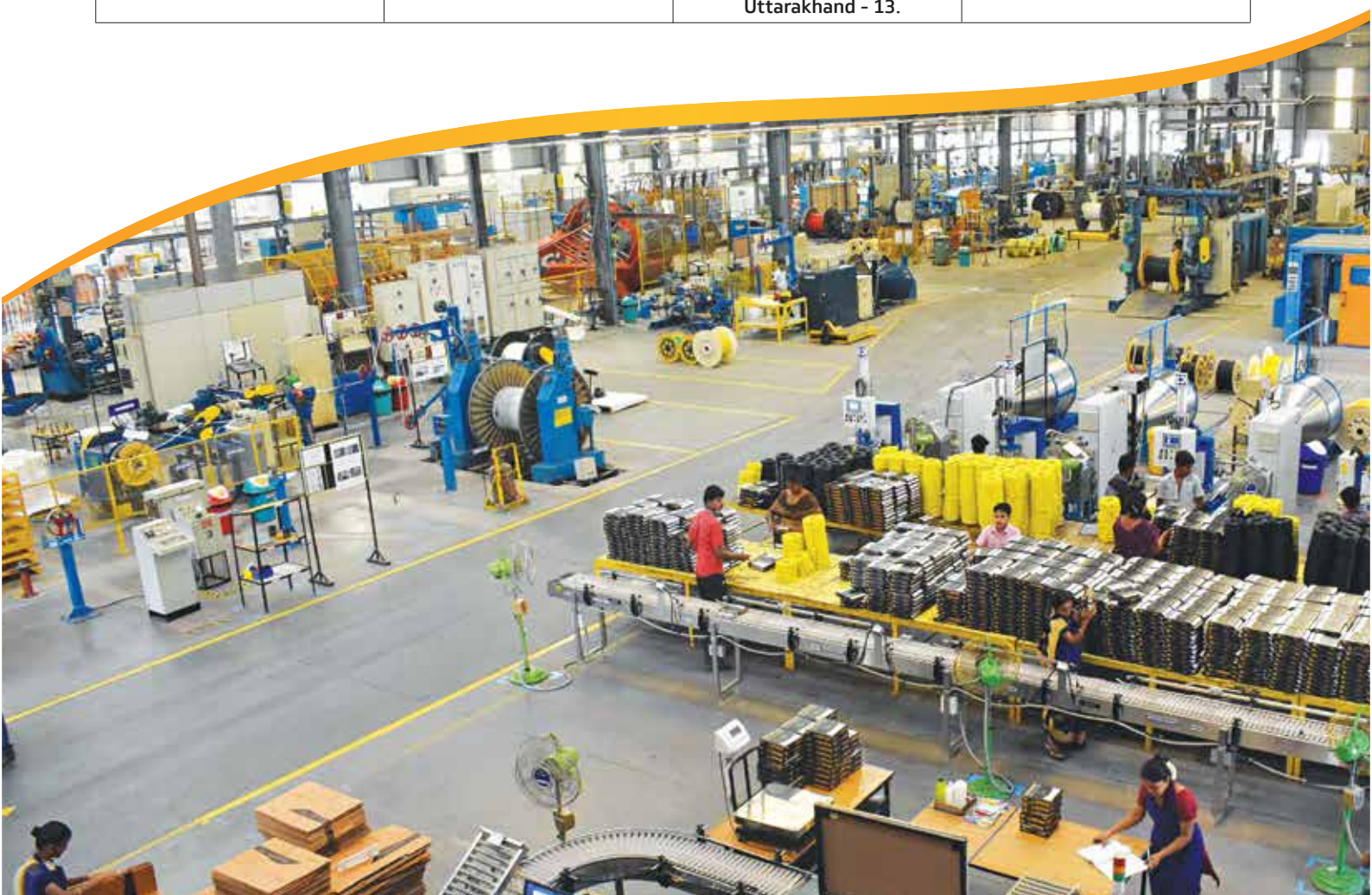
Wires & Cables Division

V-Guard wires and cables manufacturing facilities are located at Coimbatore in Tamil Nadu and Kashipur in Uttarakhand. Both factories put together have the capacity to produce more than 130 Lakh Coils (in terms of 90 m) and 30,000 Km of Multicore Round & Flat Cables per annum. The factories boast of state-of- the-art technology, both indigenous and imported, with RBD, Wire drawing machines and Bunchers supplied by Niehoff and Triple Layer Insulating Lines supplied by Nextrom, Johann Leimbach, etc.

hf™ Technology

3 LAYERED WIRES
3 TIMES PROTECTION

Description	Wires Factory, Coimbatore	Wires Factory, Kashipur	PVC Compounding Unit
PLANT ADDRESS	V-Guard Industries Ltd., (Cable Division), K.G.Chavadi, Coimbatore-05.	V-Guard Industries Ltd., 6th Km Stone, Moradabad Road, Village Basai, Khasra No. 86, Kashipur, Udham Singh Nagar, Uttarakhand - 13.	V-Guard Industries Ltd., K. G. Chavadi, Coimbatore-05.

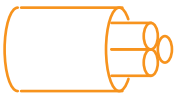


Features

High flame retardancy

Triple Layer Insulation for better safety

99.97% pure copper



High conductivity of copper

High thermal stability

Smooth surface and hence increased easiness to be pulled easily in pipes during installation

Bunched conductor

High discoloration resistance capacity of copper conductors

High ageing property of PVC insulation

Better flexibility for easy wiring

90 meters assured seal

Superio FR Series

V-Guard Superio (Flame Retardant) cable can withstand continuous heat up to 70°C.

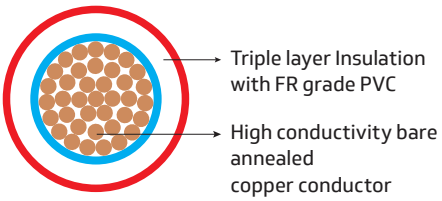
Application

The cables can be used in Domestic,
Residential and Industrial Infrastructure projects.

Features

- Anti Termite
- Moisture Guard
- Anti Ageing
- Superior insulation resistance

Cable Cross Section View



Technical Details

- Product reference standard: IS 694:2010
- Voltage Grade: Up to and including 1100 V
- Size: 0.5 to 120 Sq.mm in single core
- Conductor: Thin strands of multi drawn Electrolytic Copper
- PVC insulation: Type A/D FR 70°C as per IS 5831
- Colours: Red, Yellow, Blue, Black, Green, Grey & White
- Marking: The cables are printed with marking of 'FR' (FR indicates Flame Retardant)
- Packing: 90 m Coil is packed in protective cartons up to size 4 Sq.mm and other sizes/length in polycover

Technical Specifications For Single Core, PVC Insulated Unsheathed Cables

Conductor nominal area in Sq.mm	Number & nominal diameter of wire in No./mm	Resistance (Maximum) per km. @ 20°C in Ohm	Approximate over all diameter in mm	Nominal thickness of insulation in mm	Current carrying capacity Two cables, single phase	
					In conduit/trunking in Ampere	Unenclosed-clipped directly to a surface or on cable tray in Ampere
0.5	16/0.2**	39.0	2.2	0.6	3	4
0.75	24/0.2**	26.0	2.3	0.6	6	7
1.0	14/0.3*	18.1	2.7	0.7	11	12
1.5	22/0.3*	12.1	3.0	0.7	13	16
2.5	36/0.3*	7.41	3.6	0.8	18	22
4.0	56/0.3**	4.95	4.0	0.8	24	29
6.0	84/0.3**	3.3	4.6	0.8	31	37
10.0	80/0.4**	1.91	6.1	1.0	42	51
16.0	126/0.4**	1.21	7.2	1.0	57	68
25.0	196/0.4**	0.78	9.1	1.2	71	86

*As per conductor class 2 of IS:8130 **As per conductor class 5 of IS:8130. For BIS certification details see website "www.bis.org.in"

Classo+ FR Series

V-Guard Classo (Flame Retardant) cable can withstand continuous heat up to 70°C.

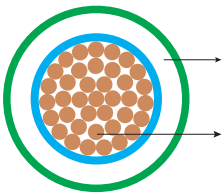
Application

The cables can be used in Domestic,
Residential and Industrial Infrastructure projects.

Features

- Anti Termite
- Moisture Guard
- Anti Ageing
- Xtra Flex

Cable Cross Section View



Technical Details

- Product reference standard: IS 694:2010
- Voltage Grade: Up to and including 1100 V
- Size: 0.75 to 4 Sq.mm in single core
- Conductor: Thin strands of multi drawn Electrolytic Copper
- PVC insulation: Type A/D FR 70°C as per IS 5831
- Colours: Red, Yellow, Blue, Black, Green, Grey & White
- Marking: The cables are printed with marking of 'FR' (FR indicates Flame Retardant)
- Packing: 90 m coil is packed in protective cartons up to size 4 Sq.mm. Higher length cables are also available in polycover

Technical Specifications For Single Core, PVC Insulated Unsheathed Cables

Conductor nominal area in Sq.mm	Number & nominal diameter of wire in No./mm	Resistance (Maximum) per km. @ 20°C in Ohm	Approximate over all diameter in mm	Nominal thickness of insulation in mm	Current carrying capacity Two cables, single phase	
					In conduit/trunking in Ampere	Unenclosed-clipped directly to a surface or on cable tray in Ampere
0.75	24/0.2	26.0	2.3	0.6	6	7
1.0	32/0.2	19.5	2.5	0.6	11	12
1.5	30/.25	13.3	2.8	0.6	13	16
2.5	48/.25	7.98	3.4	0.7	18	22
4.0	56/0.3	4.95	4.0	0.8	24	29

As per conductor class 5 of IS:8130. For BIS certification details see website "www.bis.org.in".

Twisto FR Series

V-Guard TFR (Twisted conductor Flame Retardant) cable can withstand heat upto 70°C.

Application

The cables can be used in Domestic, Residential & Industrial Infrastructure projects.

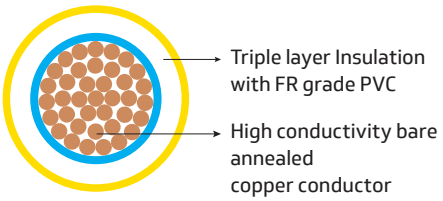
Features

- No sparks due to perfection in conductor shape and contact
- No loose strands in conductor
- No loss of copper strands during stripping
- Easy Installation

Technical Details

- Product reference standard: IS 694:2010
- Voltage Grade: Up to and including 1100 V
- Size: 1.0 to 4.0 Sq.mm in single core
- Conductor: Highly Twisted & Compacted Thin strands Copper Conductor
- PVC insulation: Type A/D FR 70°C as per IS 5831
- Colours: Red, Yellow, Blue, Black & Green
- Marking: The cables are printed with marking of 'Twisted FR' (FR indicates Flame Retardant)
- Packing: 90 m coil is packed in protective cartons

Cable Cross Section View



Technical Specifications of Single Core, Twisted FR PVC Insulated Unsheathed Cables 1100 Volts

Conductor nominal area in Sq.mm	Number & nominal diameter of wire in No./mm	Resistance (Maximum) per km. @ 20°C in Ohm	Approximate over all diameter in mm	Nominal thickness of insulation in mm	Current carrying capacity Two cables, single phase	
					In conduit/ trunking in Ampere	Unenclosed-clipped directly to a surface or on cable tray in Ampere
1.0	37/0.18	19.50	2.60	0.7	11	12
1.5	37/0.22	13.30	3.00	0.7	13	16
2.5	61/0.22	7.98	3.60	0.8	18	22
4.0	61/0.28	4.95	4.00	0.8	24	29

As per conductor class 5 of IS:8130. For BIS certification details see website " www.bis.org.in". FR indicates Flame Retardant

FRLSH Cable
(Flame Retardant Low Smoke & Low Halogen)

V-Guard FRLSH cables are made from specially formulated PVC polymers that restrict the toxic gases and smoke and therefore are safe, reliable, flame retardant and a non-toxic alternative.

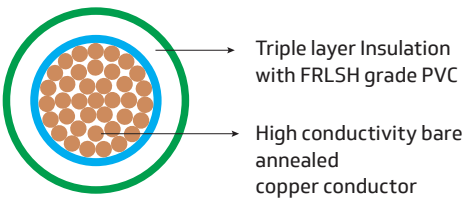
Application

Cables for wiring in fire and explosion prone areas, schools, hospitals, malls, commercial complexes, theaters, airports, hotels, residential apartments, densely populated areas and public buildings.

Technical Details

- Cable design reference standard: IS 694:2010
- Voltage Grade: Up to and including 1100 V
- Size: 0.5 to 120 Sq.mm in single core
- Conductor: Thin strands of multi-drawn Electrolytic Copper
- PVC insulation: Type A/D FRLSH 70°C as per IS 5831
- Colours: Red, Yellow, Blue, Black, Green, Grey & White
- Marking: The cables are printed with marking of 'FRLSH' (FRLSH indicates Flame Retardant Low Smoke & Low Halogen)
- Packing: Packing of 180 meters coils available

Cable Cross Section View



Technical Specifications of Single Core, FRLSH PVC Insulated Unsheathed Cables 1100 Volts						
Conductor nominal area in Sq.mm	Number & nominal diameter of wire in No./mm	Resistance (Maximum) per km. @ 20°C in Ohm	Approximate over all diameter in mm	Nominal thickness of insulation in mm	Current carrying capacity Two cables, single phase	
					In conduit/ trunking in Ampere	Unenclosed- clipped directly to a surface or on cable tray in Ampere
0.50	16/0.2	39.0	2.20	0.6	3	4
0.75	24/0.2	26.0	2.30	0.6	6	7
1.0	32/0.2	19.50	2.50	0.6	11	12
1.5	30/0.25	13.30	2.70	0.6	13	16
2.5	48/0.25	7.98	3.40	0.7	18	22
4.0	56/0.3	4.95	4.00	0.8	24	29
6.0	84/0.3	3.30	4.60	0.8	31	37
10.0	80/0.4	1.91	6.10	1.0	42	51
16.0	126/0.4	1.21	7.20	1.0	57	68
25.0	196/0.4	0.780	9.10	1.2	71	86
35.0	276/0.4	0.554	10.30	1.2	91	110
50.0	396/0.4	0.386	12.30	1.4	120	145
70.0	360/0.5	0.272	14.30	1.4	165	200
95.0	475/0.5	0.206	16.60	1.6	200	235
120.0	608/0.5	0.161	18.40	1.6	225	270
As per conductor class 5 of IS:8130-1984						

Multi Core Round Cables

V-Guard Multicore cables are available in variant of FR & FRLSH categories.

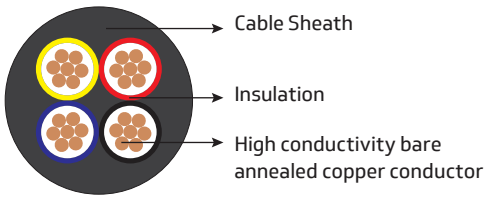
Application

Flexible & Cord Cables for Residential and Commercial Infrastructure projects.

Features

- Better finish and strength for heavy duty applications
- Every “meter length” is marked

Cable Cross Section View



Technical Details

- Product reference standard: IS 694:2010
- Voltage Grade: Up to and including 1100 V
- Size: 2, 3 & 4 cores available in sizes from 0.5 to 16 Sq.mm
- Conductor: Electrolytic grade annealed copper class 5 as per IS 8130
- Insulation: PVC with 70° C rating as per IS 5831
- Sheath: PVC with 70° C rating as per IS 5831
- Sheath Colour: Black, Ivory, White & Grey
- Packing: Standard packing of 100 m in coils. Longer length available on request

Technical Specification of Multicore Round PVC Insulated and PVC Sheathed Flexible Cables, 1100 Volts

Conductor nominal area in Sq.mm	Number & nominal diameter of wire in No./mm	Resistance (Maximum) per km. @ 20°C in Ohm	Nominal thickness of insulation in mm	Nominal thickness of sheath in mm			Approximate over all diameter in mm			Current carrying capacity in Ampere (Unenclosed - clipped directly to a surface or on cable tray)	
				2 Core	3 Core	4 Core	2 Core	3 Core	4 Core	2 Core & 3 Core Cables for Single Phase AC DC/	3 Core & 4 Core Cables for Three Phase AC
0.50	16/0.2	39.0	0.6	0.9	0.9	0.9	6.2	6.5	7.0	4	4
0.75	24/0.2	26.0	0.6	0.9	0.9	0.9	6.5	6.9	7.5	7	7
1.0	32/0.2	19.5	0.6	0.9	0.9	0.9	6.9	7.4	8.0	12	10
1.5	30/0.25	13.3	0.6	0.9	0.9	1.0	7.5	8.0	8.7	16	14
2.5	48/0.25	7.98	0.7	1.0	1.0	1.0	8.9	9.4	10.3	20	18
4.0	56/0.3	4.95	0.8	1.0	1.0	1.0	10.1	10.8	11.9	27	24
6.0	84/0.3	3.30	0.8	1.1	1.2	1.2	11.5	12.4	13.6	34	30
10.0	80/0.4	1.91	1.0	1.3	1.4	1.4	14.7	15.8	17.5	44	39
16.0	126/0.4	1.21	1.0	1.4	1.4	1.4	17.0	18.1	20.0	61	55
As per conductor class 5 of IS: 8130-1984											

3 Core Flat Submersible Cables

V-Guard three core flat cables are ideally suited for heavy duty applications mainly in submersible pumps.

Application

Flat cables for Submersible Pumps & Motors

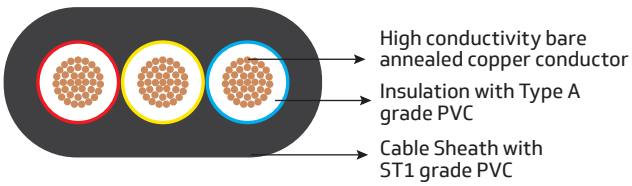
Features

- Better finish and strength for heavy duty applications
- Non hygroscopic: High discoloration resistance capacity of copper conductors
- High abrasion resistant

Technical Details

- Cable design reference standard: IS 694:2010
- Voltage grade: Up to and including 1100 V
- Size: 1 to 10 Sq.mm in three cores
- Conductor: Electrolytic grade annealed copper class 5 as per IS 8130
- Insulation: PVC with 70° C rating as per IS 5831
- Sheath: PVC with 70° C rating as per IS 5831
- Sheath Colour: Black
- Packing: Standard packing of 500 m (coils & drum) Long length also available on request

Cable Cross Section View



Technical Specifications of Multicore Flat PVC Insulated and PVC Sheathed Flexible Cables, 1100 Volts							
Conductor nominal area in Sq.mm	Number & nominal diameter of wire in No./mm	Resistance (Maximum) per km. @ 20°C in Ohm	Nominal thickness of insulation in mm	Nominal thickness of sheath in mm	Approximate over all diameter in mm		Current carrying capacity at 40°C in Ampere
					Width	Height	
1.0	32/0.2	19.5	0.6	0.9	9.4	4.4	12
1.5	30/0.25	13.3	0.6	0.9	10.3	4.7	16
2.5	48/0.25	7.98	0.7	1.0	12.3	5.5	22
4.0	56/0.3	4.95	0.8	1.0	14.1	6.2	29
6.0	84/0.3	3.30	0.8	1.1	16.2	7.0	37
10.0	80/0.4	1.91	1.0	1.4	20.9	8.9	51
As per conductor class 5 of IS: 8130-1984							

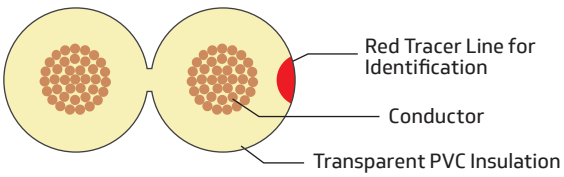
Speaker Cables

V-Guard Speaker Cables are designed to be used at homes for speakers & sound systems.

Salient Features

- 99.97% pure Copper
- Better flexibility for easy wiring
- Uniform capacitance throughout the length
- Distortion free voice with low dB loss

Cable Cross Section View



Technical Details

- Conductor: Speaker cables are manufactured with multi wire, bright annealed flexible bare electrolytic grade conductor
- Insulation: Twin parallel insulated with specially formulated transparent grade PVC compound. For easy identification, one of the cores is marked with red tracer line all along the length of the cable
- Packing: Available in 90 meter packed in carton

Technical Specifications for Speaker Cables				
Conductor nominal area in Sq.mm	Number & nominal diameter of wire in No./mm	Resistance (Maximum) per km. @ 20°C in Ohm	Approximate over all diameter in mm	Nominal thickness of insulation in mm
0.5	16/0.2	39.0	4.70 x 2.30	0.70
0.75	24/0.2	26.0	5.20 x 2.55	0.75
1.0	32/0.2	19.5	5.60 x 2.80	0.80
1.5	30/0.25	13.3	6.40 x 3.20	0.85
2.0	40/0.25	9.05	7.10 x 3.55	0.90
2.5	50/0.25	7.98	7.60 x 3.75	0.95

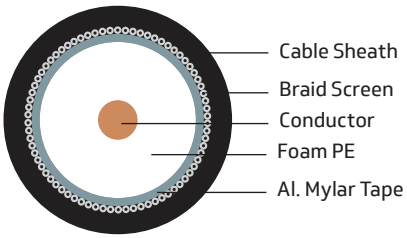
Coaxial Cable (RG6)

V-Guard Coaxial Cables are designed to be used at homes for television sets and also in security agencies for advanced data transmission.

Salient Features

- Protects signals from external electromagnetic interference
- Very low Attenuation or signal losses
- For both analog and digital transmission
- Special jacketing offers increased life even in rugged conditions
- Jelly filled

Cable Cross Section View



Technical Details

- Conductor: The central conductor is made of solid electrolytic grade annealed bare copper (BC) conductor or copper clad steel (CCS) conductor
- Insulation: The insulation provided over the conductor is of foam polyethylene (PE) dielectric insulator with gas injected in it to reduce signal loss
- Screen: Aluminium mylar tape is provided over the insulated conductor to shield the conductor and ensure disturbance-free transmission of signals
- Braiding: The braiding is generally provided with 60% coverage of Aluminium-Magnesium alloy
- Packing: Available in 100 meter packed in carton and 305 meter packed in easy pull box. Higher lengths available on special request

TECHNICAL SPECIFICATION OF RG6 COAXIAL CABLE (JELLY FILLED)		
Properties	**Unit**	**Specification**
Construction Parameters		
Conductor Material	---	Solid bare copper / CCS
Nominal Diameter	mm	1.02 ± 0.01
Insulation Material	---	Foam PE
Nominal Diameter of Foam	mm	4.57 ± 0.1
Centricity	%	≥ 85
Shield Material	---	Bonded Aluminium Foil
Braiding Material	---	Aluminium - Magnesium Alloy
Braiding Coverage	---	16*6*0.12mm (63%)
Jacket Material	---	PVC
Nominal Diameter of PVC Jacket	mm	7.0 ± 0.1
Colour	---	Black
Electrical Parameters		
Nominal Impedance	Ω	75±3
Nominal Velocity of Propagation	%	85
Nominal Capacitance	pF/meter	50
Insulation Resistance	MΩ/km	≥100000
Structural Return Loss (5 to 300 MHz)	dB	20
Structural Return Loss (300 to 1000 MHz)	dB	18
Performance		
Frequency MHz		**Attenuation @ 68°F (20°C)**
55	dB/100 m (Max)	5.25
187	dB/100 m (Max)	9.35
300	dB/100 m (Max)	11.64
450	dB/100 m (Max)	14.43
600	dB/100 m (Max)	16.83
750	dB/100 m (Max)	18.6
865	dB/100 m (Max)	20.1
1000	dB/100 m (Max)	21.6

Telephone Cables

V-Guard twisted paired cables are best suited for telephone and switchboard cabling applications. The cables can be used for switchboard and internal telephone wiring in apartments, high-rise buildings, offices, factories, hotels, residential complexes, etc. The most common sizes are 2 Pair, 3 Pair, 4 Pair and 5 Pair in conductor of 0.4 mm or 0.5 mm.

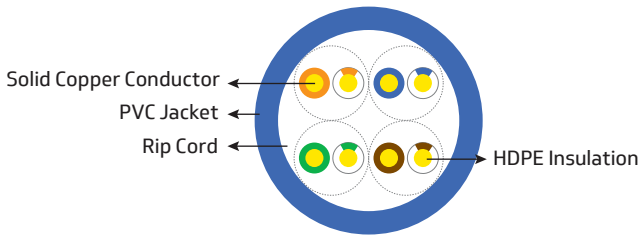
Salient Features

- Low Power Loss
- Low Crosstalk
- Fire Retardant Sheath
- Low Attenuation

Range of Product

- 1 Pair to 20 Pair (0.4 mm / 0.5 mm)

Cable Cross Section View



Technical Details:

- Conductor: The central conductor is made of bare annealed solid electrolytic grade of copper
- Insulation: Premium quality HDPE is used. This serves for low attenuation and minimized cross talk
- Twisted Pairs: The cores are carefully twisted with suitable lays and bunched together
- Packing: Available in 90 meter and 500 meter. Higher lengths available on special request

Sl. No	Technical Parameters	Requirements				
A	Physical Parameter					
1	Construction	1 Pair	2 Pair	3 Pair	4 Pair	5 Pair
2	Conductor Material: 0.4 mm diameter (nominal) & 0.5 mm diameter (nominal)	Solid Annealed Bare Copper of Conductivity & Purity				
3	Insulation Material (0.4 & 0.5 mm diameter)	High Density Polyethylene				
4a	Insulation Thickness (Average) for 0.4 mm diameter	0.17 mm	0.17 mm	0.17 mm	0.17 mm	0.17 mm
4b	Insulation Thickness (Average) for 0.5 mm diameter	0.20 mm	0.20 mm	0.20 mm	0.20 mm	0.20 mm
5a	Diameter of Insulated Conductor for 0.4 mm diameter	0.74 mm	0.74 mm	0.74 mm	0.74 mm	0.74 mm
5b	Diameter of Insulated Conductor for 0.5 mm diameter	0.92 mm	0.92 mm	0.92 mm	0.92 mm	0.92 mm
6	Rip cord (0.4 & 0.5 mm diameter)	Nylon				
7	Colour Combination	White-Blue/ Blue				
		-	White-Orange/ Orange			
		-	-	White-Green/ Green		
		-	-	-	White-Brown/ Brown	
		-	-	-	-	White-Grey/ Grey
8	PVC Jacket (0.4 mm diameter & 0.5 mm diameter)	FRPVC compound with high oxygen index (LOI = 29%)*				
9a	PVC Thickness Minimum (for 0.4 mm)	0.32	0.32	0.32	0.32	0.32
9b	PVC Thickness Minimum (for 0.5 mm)	0.32	0.32	0.32	0.62	0.62
10a	Approximate Outer Diameter (for 0.4 mm)	2.40	2.73	3.20	3.55	4.00
10b	Approximate Outer Diameter (for 0.5 mm)	2.74	3.15	3.71	4.90	5.43
11	Packing Length (meters)	Available in 90 meter and 500 meter				
B	Electrical Parameters					
1	Conductor Resistance (maximum) ohm/km at 20°C	143 Ω / km for 0.4 mm diameter & 92.2 Ω / km for 0.5 mm diameter				
2	Mutual Capacitance (maximum) Nano Farads/km	50	50	50	50	50
3	Insulation Resistance in Air (minimum) Meg-ohms/km	10000	10000	10000	10000	10000
4	Capacitance Unbalance Pair to Pair (maximum) Pico Farad / km	250	250	250	250	250

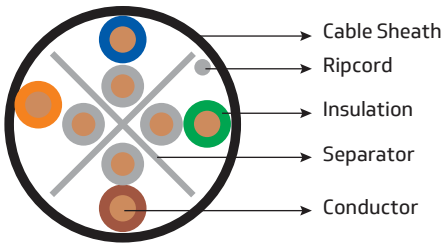
Lan Cable

V-Guard LAN Cables enable data transfer without transmission loss or theft. These technologically advanced cables are compatible with the most superior networking switch gears and provide express-speed performance of up to 250 MHz. Its unique zero interference feature assures that no signal loss is experienced during data transfer process.

Salient Features

- Min. radiation and max. noise immunity
- Excellent electromagnetic compatibility
- High speed data access
- Prevent cross talking

Cable Cross Section View



Technical Details

- Conductor: Solid bare copper
- Insulation: High density polyethylene
- Pair: 2 Insulated conductors twisted together with unique lay
- Outer Jacket: FR PVC
- Outer Jacket colours - Yellow or as per customer requirement
- Packing: Available in 305 meter packed in easy pull box

TECHNICAL SPECIFICATION OF UTP CAT6 (23AWG) 4 Pair		
Description	**Unit**	**Size / Specification**
CONDUCTOR :		
Conductor Material	---	23 AWG Solid Annealed Bare Copper
Conductor dia	mm	0.55 ± 0.01
INSULATION		
a) Composition of insulation	---	High Density Polyethylene
b) Nominal diameter for insulation	mm	0.98 ± 0.02
c) Nominal Thickness for insulation	mm	0.24
LAID UP		
Rip Cord Material	---	3 Ply Nylon
Colour Codes	---	Brown / Brown-White Green / Green -White Blue / Blue-White Orange / Orange-White
SHEATH		
a) Composition of Sheath	-	FRPVC compound with high oxygen index (LOI > 29%)*
b) Hardness of Sheath	Shore A	86 - 88
c) Nominal Thickness for sheath	mm	0.7
d) Nominal Diameter for sheath	mm	6.0 ± 0.2
ELECTRICAL CHARACTERISTICS		
Mutual Capacitance	nF/100m	< 5.6
Nominal Impedance	Ω	100±15
Nominal Velocity of Propagation	%	> 65 @ 250 MHz
Conductor Resistance	Ω/km	< 78.3
Resistance Unbalance	%	< 2
Capacitance Unbalance	pF/100m	330
Propagation Delay	nS/100m	< 546 @ 20° C
Delay Skew	nS/100m	< 45 @ 20° C
Return loss test @ 250 MHz	---	TIA/EIA 568 C
Attenuation test @ 250 MHz	---	TIA/EIA 568 C
Temperature Range	°C	Up to 70°

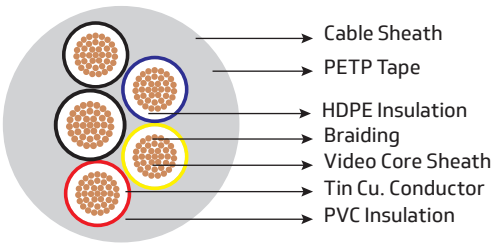
CCTV Cable

V-Guard offers specially designed cables for CCTV Camera cable for high quality video transmission. These cables are designed to transmit the complete video frequency range with minimum distortion or attenuation. They offer reliable security by withstanding over-heating, seepage, weather changes and rodent attacks.

Salient Features

- Minimum distortion of video frequency range
- Clear Picture even on low frequency

Cable Cross Section View



Technical Details

- Screened Core for Video signal
- Conductor: The central conductor is made of fine wires tin coated electrolytic grade copper
- Insulation: The insulation provided over the conductor is of HDPE with high dielectric strength and low capacitance
- Screen: Annealed tin coated copper 85% coverage approx
- Sheath: Black coloured PVC Power Cores
- Separator: PETP tape
- Sheath: PVC
- Cable Colour: White
- Packing : Available in 100 meter packed in carton and 305 meter packed in easy pull box

TECHNICAL SPECIFICATION OF CCTV CABLES				
Construction Parameters				
Co-axial Cable Section		**Power Cable Section**		
Inner Conductor		**Number of Cores**	**3+1**	**4+1**
Material	Annealed Tinned Copper	Conductor	7x0.20 Annealed Tinned Copper	
Diameter in mm (Nominal)	9x0.20	Insulation	Type A PVC conforming to IS:5831	
Dielectric Insulation		Diameter in mm (Nominal)	1.47	
Material	PE	Colour Codes	Red, Yellow, Blue	Red, Yellow, Blue, Black
Diameter in mm (Nominal)	1.50			
Shield		**Jacket**		
Material	48/0.12 TC	Material	ST 1 PVC conforming to IS:5831	
Jacket		Colour	White	
Material	PVC Black	Diameter in mm	6.50	7.00
Diameter in mm (Nominal)	3.00			
Electrical Specifications				
Nominal DC Resistance at 20° C (Ohm)	3.55	**Performance**		
Mutual Capacitance (pF/m)	53	**Frequency in MHz**	**Max. Attenuation (db/100m) at 20° C**	
Characteristics Impedance (Ohm)	75	55	6.73	
Structural Return Loss	Min 15 dB @ 1 - 1000 MHz	187	11.81	
Nominal Velocity Ratio (%)	85	300	14.60	
		550	19.52	
		750	22.87	
		865	24.67	
		1000	26.64	