

# GULIX OVERVIEW

Gulix Cable Pvt. Ltd. is a **technology-driven** cable manufacturer delivering reliable and innovative cable solutions for critical industries and infrastructure.



RAILWAYS



RENEWABLE  
 ENERGY



INDUSTRIAL &  
 PROCESS PLANTS



DEFENCE



TELECOM



INFRASTRUCTURE



OEMs & EPC

## OUR CABLE SOLUTIONS



LV POWER  
 CABLES

Reliable power distribution for industrial & commercial applications



CONTROL  
 CABLES

Precision control and automation for modern industrial systems



INSTRUMENTATION  
 CABLES

Accurate signal transmission for critical process applications



SIGNALLING  
 CABLES

Safe & dependable signalling solutions for infrastructure & transportation



SOLAR  
 CABLES

UV & weather resistant cables for solar energy systems



WIND APPLICATION  
 CABLES

Engineered for wind energy systems with high reliability & endurance



ELASTOMERIC  
 CABLES

Flexible, durable & robust cables for harsh environments



SPECIAL APPLICATION  
 CABLES

Customized cable solutions for unique and demanding applications



TECHNOLOGY  
 DRIVEN



QUALITY  
 ASSURED



APPLICATION  
 FOCUSED



SUSTAINABLE  
 SOLUTIONS



[www.gulixcable.com](http://www.gulixcable.com)



GULIX CABLE PVT. LTD.  
 1100 V | FRLS | 4C X 10 SQ.MM  
 MADE IN INDIA | YYY/MM

GULIX  
 CABLE  
 POWERING POSSIBILITIES



### COMPLETE RANGE OF ARMoured & UNARMoured LV CABLES

UP TO 1.1 kV

At Gulix Cable, we manufacture a wide range of Armoured and Unarmoured LV Cables engineered for safety, reliability and superior performance. Built with high-grade materials and advanced technology, our cables are trusted across industries for powering a stronger tomorrow.

-   
SAFE &  
RELIABLE
-   
DURABLE &  
FLEXIBLE
-   
FLAME  
RETARDANT
-   
HIGH  
REPERFORMANCE
-   
QUALITY  
ASSURED

#### CABLE CONSTRUCTION



#### CONFORMS TO

-  IS 7098 (Part 1)
-  IS 1554 (Part 1)
-  IEC 60502 (Part 1)
-  EN 50525 / EN 60228

LV CABLES UP TO 1.1 kV

#### OUR CABLE RANGE

##### ARMoured CABLES

- Power Cables
- Control Cables
- Instrumentation Cables
- Aluminium / Copper Conductor
- PVC / XLPE / LSZH Insulation
- Steel Wire / Strip Armouring
- Indoor, Outdoor & Direct Burial Applications



##### UNARMoured CABLES

- Power Cables
- Control Cables
- Instrumentation Cables
- Flexible Cables
- Aluminium / Copper Conductor
- PVC / XLPE / LSZH Insulation
- Indoor & Outdoor Applications



#### WIDE RANGE OF APPLICATIONS

 INDUSTRIAL PLANTS	 COMMERCIAL BUILDINGS	 INFRASTRUCTURE PROJECTS	 POWER DISTRIBUTION
 RAILWAY & METRO	 RENEWABLE ENERGY (SOLAR)	 WIND ENERGY PROJECTS	 RESIDENTIAL BUILDINGS
 CONTROL PANELS & SWITCHGEAR	 OEM & PANEL APPLICATIONS	 PUMPING STATIONS	 WATER TREATMENT PLANTS



#### QUALITY ASSURED. PERFORMANCE GUARANTEED.

Every meter of Gulix Cable is manufactured and tested to ensure uncompromised quality, safety and long service life.

 50,000+ Sq. Ft. Manufacturing Infrastructure	 Advanced Machinery & Technology	 Stringent Quality Control at Every Stage	 Skilled Team & Technical Expertise	 Commitment to Safety, Quality & Sustainability	GULIX CABLE PRIVATE LIMITED  Bhiwadi, Rajasthan, India  <a href="http://www.gulixcable.com">www.gulixcable.com</a>
---	---	--	--	--	--

# GULIX CABLE

POWERING POSSIBILITIES

## CONTROL CABLES UP TO 61 CORES

IN XLPE / PVC TYPE | ARMOURED & UNARMOURED

Gulix Control Cables are designed for reliable signal transmission and control in industrial automation, machinery and process control applications. Available in XLPE/PVC insulation with armoured and unarmoured construction up to 61 cores.



PRECISE SIGNAL  
TRANSMISSION



RELIABLE &  
SAFE OPERATION



FLEXIBLE &  
DURABLE



ARMOURED  
PROTECTION



FLAME RETARDANT  
& SAFE

### CONSTRUCTION

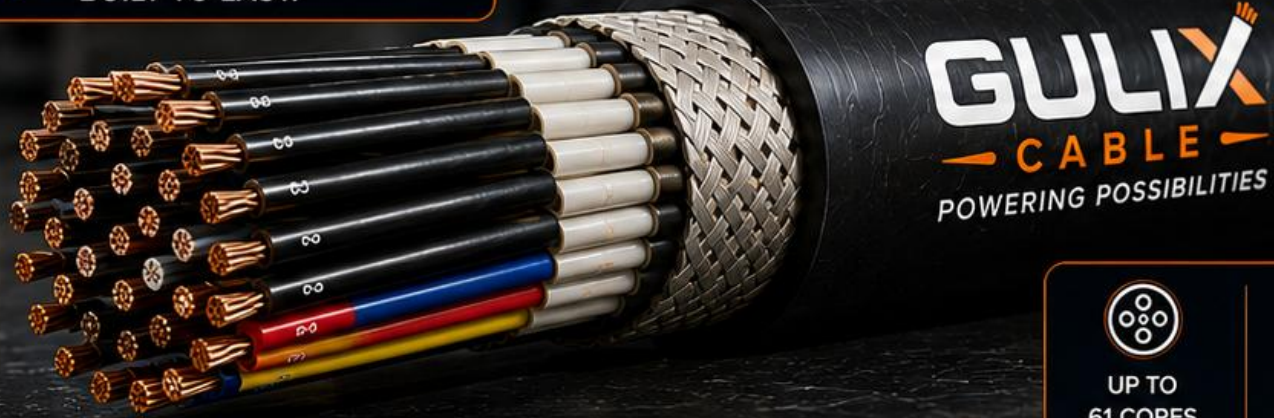
GULIX CABLE  
POWERING POSSIBILITIES



- Fine Stranded Copper Conductor (as per IS 8130)
- XLPE / PVC Insulation (as per IS 7098 Part 1)
- Core Identification (Numbered)
- Fillers (If Applicable)
- Inner Sheath (PVC)
- Armouring (GI Wire / Steel Tape)
- Outer Sheath (PVC / FR PVC) (as per IS 5831 / IS 15552)



RELIABLE CONTROL.  
PRECISE PERFORMANCE.  
BUILT TO LAST.



UP TO  
61 CORES



ARMOURED &  
UNARMOURED

### TECHNICAL SPECIFICATIONS

Cable Type	Control Cables
No. of Cores	Upto 61 Cores
Conductor	Fine Stranded Annealed Copper as per IS 8130
Insulation	XLPE / PVC as per IS 7098 (Part 1)
Core Identification	Black cores with white numbering
Inner Sheath	PVC
Armouring (Optional)	GI Wire Armour / Steel Tape Armour
Outer Sheath	PVC / FR PVC as per IS 5831 / IS 15552
Voltage Grade	Upto 1100 V
Applications	Industrial Automation, Process Control, Machine Tools, Control Panels, Power & Control Systems

### APPLICATIONS



INDUSTRIAL  
AUTOMATION



CONTROL PANELS  
& SWITCHGEAR



MACHINE TOOLS  
& EQUIPMENT



PROCESS CONTROL  
SYSTEMS



POWER & CONTROL  
SYSTEMS



BUILDING MANAGEMENT  
SYSTEMS



WATER & WASTE  
WATER PLANTS



SOLAR & RENEWABLE  
ENERGY SYSTEMS



CONFORMS TO  
INTERNATIONAL &  
INDIAN STANDARDS

- IS 7098 (Part 1)
- IS 1554 (Part 1)
- IEC 60502 (Part 1)
- EN 50525 / EN 60228
- IS 8130
- IS 5831 / IS 15552



HIGH FLEXIBILITY  
& DURABILITY



OIL & CHEMICAL  
RESISTANT



UV & WEATHER  
RESISTANT



WIDE OPERATING  
TEMPERATURE



QUALITY ASSURED.  
PERFORMANCE GUARANTEED.

## INSTRUMENTATION CABLES

RELIABLE SIGNAL TRANSMISSION. PRECISE CONTROL.

Gulix Instrumentation Cables are designed to transmit accurate and interference-free signals in critical measurement and control applications. Manufactured with high quality materials and advanced technology to ensure reliability, stability and long service life in the most demanding environments.



ACCURACY. RELIABILITY.  
PERFORMANCE.  
BUILT TO MEASURE.



GULIX CABLE

POWERING POSSIBILITIES



EXCELLENT NOISE  
IMMUNITY



PRECISE SIGNAL  
TRANSMISSION



WIDE OPERATING  
TEMPERATURE



FLEXIBLE &  
EASY INSTALLATION



RELIABLE &  
LONG LASTING

### CONSTRUCTION

GULIX CABLE



### TYPE / CONFIGURATION



PAIR

(Screened / Unscreened)



TRIPLE

(Screened / Unscreened)



QUAD

(Screened / Unscreened)



MULTI-PAIR / MULTI-TRIPLE

(Overall Screened)



CUSTOM CONFIGURATIONS

Available on Request

### TECHNICAL SPECIFICATIONS

Cable Type	Instrumentation Cables
Core Configuration	Pair / Triple / Quad / Multi-pair / Multi-triple
Conductor	Fine Stranded Annealed Copper as per IS 8130
Insulation	XLPE / PVC as per IS 7098 (Part 1)
Core Identification	As per pair / triple / quad color code
Screening	Aluminium Foil Overall Screen with Tinned Copper Drain Wire
Armouring (Optional)	GI Wire Braid / Steel Wire Braid
Outer Sheath	PVC / FR PVC / LSZH as per IS 5831 / IS 15552 / IEC 60754
Voltage Grade	300 / 500 V, 500 V, 1.1 kV
Temperature Range	-20°C to +70°C (PVC), -20°C to +90°C (XLPE)
Applications	Process Control, Instrumentation, Measurement, Automation, Chemical, Oil & Gas, Power, Petrochemical, Water Treatment, Pharmaceuticals, etc.

### CONFORMS TO

- IS 7098 (Part 1)
- IS 1554 (Part 1)
- IEC 60502 (Part 1)
- IEC 60228
- IEC 60754
- EN 50525 / EN 50288
- RoHS Compliant



UP TO  
61 CORES



ARMOURED &  
UNARMOURED

### APPLICATIONS



PROCESS CONTROL



INDUSTRIAL  
AUTOMATION



OIL & GAS



CHEMICAL &  
PETROCHEMICAL



POWER PLANTS



WATER & WASTE  
WATER TREATMENT



PHARMACEUTICALS



BUILDING  
MANAGEMENT



RoHS  
COMPLIANT



IS 7098 (Part 1)  
COMPLIANT



FLAME RETARDANT  
AS PER  
IEC 60332-1



QUALITY ASSURED.  
PERFORMANCE  
GUARANTEED.

## SOLAR CABELS

2.5 SQ.MM UPTO 400 SQ.MM

ENGINEERED FOR HIGH PERFORMANCE.  
BUILT FOR A SUSTAINABLE FUTURE.

Gulix Solar Cables are specially designed for photovoltaic power systems. Manufactured with advanced materials and rigorous quality control to ensure maximum safety, long life and excellent performance in harsh environmental conditions.

- UV, OZONE & WEATHER RESISTANT
- WIDE OPERATING TEMPERATURE -40°C to +120°C
- HIGH VOLTAGE DC RATING 1.5 kV DC
- WATER & MOISTURE RESISTANT
- FLAME RETARDANT & HALOGEN FREE LOW SMOKE
- FLEXIBLE & EASY TO INSTALL
- RELIABLE & LONG LIFE PERFORMANCE



- WIDE OPERATING TEMPERATURE -40°C to +120°C
- HIGH VOLTAGE DC RATING 1.5 kV DC
- WATER & MOISTURE RESISTANT
- FLAME RETARDANT & HALOGEN FREE LOW SMOKE
- FLEXIBLE & EASY TO INSTALL
- RELIABLE & LONG LIFE PERFORMANCE

CONFORMS TO

- EN 50618
- IS 17293
- IEC 62930

### CONSTRUCTION

- Tinned Annealed Copper Conductor (Class 5 as per IEC 60228)
- Insulation (EB-XLPO) (Electron Beam Cross Linked)
- Outer Sheath (EB-XLPO)
- Halogen Free, UV & Weather Resistant

### WHAT IS EB-XLPO ?

Electron Beam (EB) cross linked XLPO is a high performance insulation & sheath material. It offers superior mechanical strength, high thermal endurance (-40°C to +120°C), enhanced resistance to UV, ozone, weathering and chemical corrosion, ensuring longer life and reliability in solar applications.

### EB-XLPO ADVANTAGES

- High UV & Weather Resistance
- Wide Operating Temperature (-40°C to +120°C)
- Superior Mechanical & Abrasion Resistance
- Halogen Free, Low Smoke, Flame Retardant
- Excellent Electrical & Thermal Stability
- Longer Life in Harsh Outdoor Conditions

### TECHNICAL SPECIFICATIONS

Product	Solar Cables (Photovoltaic Cables)
Cross Section Range	2.5 Sq.mm upto 400 Sq.mm
Cable Type	ATC / XLPO / XLPO-E / EB-XLPO
Voltage Rating	1.5kV DC (Max.)
Wide Operating Temperature	-40°C to +120°C (Max. conductor temperature)
Conductor	Tinned Annealed Copper, Class 5 as per IEC 60228
Insulation	EB-XLPO as per EN 50618 / IEC 62930
Outer Sheath	EB-XLPO as per EN 50618 / IEC 62930
Flame Retardant	IEC 60332-1-2
Standards	EN 50618, IS 17293, IEC 62930
Application	For use in Photovoltaic Power Systems, Solar Panels, Inverters & DC Applications

### TYPE OPTIONS

- ATC**  
Annealed Tinned Copper conductor with ATC Insulation & XLPO Sheath
- XLPO**  
Cross Linked Polyolefin Insulation with XLPO Sheath
- XLPO/XLPO**  
Cross Linked Polyolefin Insulation with XLPO Sheath (Double Insulated)
- EB-XLPO (RECOMMENDED)**  
Electron Beam Cross Linked XLPO Insulation & Sheath (Wide Temp. -40°C to +120°C)

### APPLICATIONS

- SOLAR POWER PLANTS
- ROOFTOP SOLAR SYSTEMS
- INVERTERS & DC SYSTEMS
- COMBINER BOX & DC DISTRIBUTION
- MODULE STRINGING & INTERCONNECTIONS
- UTILITY SCALE & DC APPLICATIONS

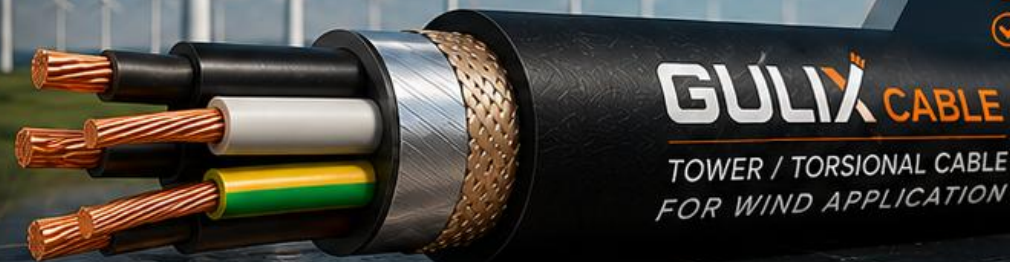
## TOWER CABLE / TORSIONAL CABLE FOR WIND APPLICATION

Specially engineered for wind turbine systems where cables are subjected to continuous torsion, bending and dynamic stress. Designed to deliver exceptional reliability, flexibility and long service life in the most demanding environments.



**ENGINEERED FOR WIND.  
BUILT TO PERFORM.**

- ✓ High Flexibility & Torsion Resistance
- ✓ Excellent Mechanical Strength
- ✓ UV, Ozone & Weather Resistant
- ✓ Flame Retardant & Halogen Free
- ✓ Reliable Performance, Long Life



CONFORMS TO

- ✓ EN 50618
- ✓ IS 17293
- ✓ IEC 62930



HIGH TORSION  
RESISTANCE  
±180°/m



WIDE OPERATING  
TEMPERATURE  
-40°C TO +120°C



HIGH MECHANICAL  
STRENGTH &  
DURABILITY



FLAME RETARDANT  
& HALOGEN FREE  
LOW SMOKE



UV, OZONE &  
WEATHER  
RESISTANT



RELIABLE &  
LONG SERVICE LIFE

### CONSTRUCTION



### TYPE OPTIONS

#### ATC

Annealed Tinned Copper conductor with ATC Insulation & LSZH Sheath

#### XLPO

Cross Linked Polyolefin Insulation with LSZH Sheath

#### EB-XLPO

(RECOMMENDED)

Electron Beam Cross Linked XLPO Insulation & LSZH Sheath for superior thermal, mechanical & electrical performance

#### MULTI-CORE OPTIONS

Available in 2 to 25 cores with or without earth conductor

### TECHNICAL SPECIFICATIONS

Parameter	Tower Cable / Torsional Cable
Application	Wind Turbine – Nacelle, Loop & Pitch Control Systems
Rated Voltage	Upto 1.1 kV AC / 1.5 kV DC
Temperature Range	-40°C to +120°C
Torsion Capability	±180°/m (Dynamic)
Bending Radius	As per standard / application requirement
Conductor	Tinned Annealed Copper, Class 5 as per IEC 60228
Insulation	XLPO / EPR as per EN 50618 / IEC 62930
Inner Sheath	LSZH
Outer Sheath	LSZH / MDPE
Flame Retardant	IEC 60332-1-2
Halogen Free	IEC 60754-1 & IEC 60754-2
Smoke Density	IEC 60754-1 & IEC 61034-2
Standards	IEC 62930, EN 50618, IS 17293
	Designed as per IEC 60502-1, IEC 62895-1 Wind Turbine Cables & Customer Specifications

### APPLICATIONS



ENGINEERED FOR  
EXTREME WIND  
CONDITIONS



MAXIMUM RELIABILITY  
IN DYNAMIC  
APPLICATIONS



TESTED FOR TORSION,  
FLEXING & BENDING  
PERFORMANCE



STRICT QUALITY  
CONTROL &  
ROUTINE TESTING



GLOBAL STANDARDS  
COMPLIANCE



POWERING  
RENEWABLE ENERGY.  
POWERING TOMORROW.

## RAILWAY SIGNALLING CABLES

AS PER IRS S-63 & IRS S-76

Gulix Railway Signalling Cables are manufactured in accordance with Indian Railways Specifications IRS S-63 (PVC Insulated Cables) & IRS S-76, ensuring safe, anti-theft protection and reliable data transmission for all railway signalling and communication networks.

### COMPLIANT TO INDIAN RAILWAYS SPECIFICATIONS

- ✓ **IRS S-63**  
(PVC Insulated Cables for Signalling & Telecommunication)
- ✓ **IRS S-76**  
(Signalling Cables for Electronic Interlocking)
- ✓ Ensures Safety, Anti-theft Protection & Reliable Data Transmission
- ✓ Tested for Harsh Railway Environment & Long Service Life



**INDIAN RAILWAYS COMPLIANT**



**ENGINEERED FOR SAFETY. BUILT FOR INDIAN RAILWAYS.**

**GULIX CABLE**

RAILWAY SIGNALLING CABLE  
AS PER IRS S-63 & IRS S-76

**GULIX CABLE**  
RAILWAY SIGNALLING CABLE  
AS PER IRS S-63 & IRS S-76

- ✓ SAFE & RELIABLE SIGNALLING
- ✓ ANTI-THEFT PROTECTION
- ✓ HIGH DATA INTEGRITY
- ✓ FLAME RETARDANT (FR)
- ✓ LOW SMOKE (LS)
- ✓ OIL & CHEMICAL RESISTANT
- ✓ WEATHER & UV RESISTANT
- ✓ LONG SERVICE LIFE

### CONSTRUCTION (FLEXIBLE - CLASS 5 CONDUCTOR)

- 1 Flexible Annealed Copper Conductor (Class 5) (As per IS 8130)
- 2 PVC Insulation (Type TI 1) (As per IRS S-63 / S-76)
- 3 Core Identification (As per specification)
- 4 Cores Laid Up in Layers
- 5 Overall PVC Sheath (Type TM 1) (As per IRS S-63 / S-76)
- 6 Colour : Black (Standard)

### TYPES OF SIGNALLING CABLES



CONDUCTOR CLASS : CLASS 5 FLEXIBLE (AS PER IS 8130)

### TECHNICAL SPECIFICATIONS

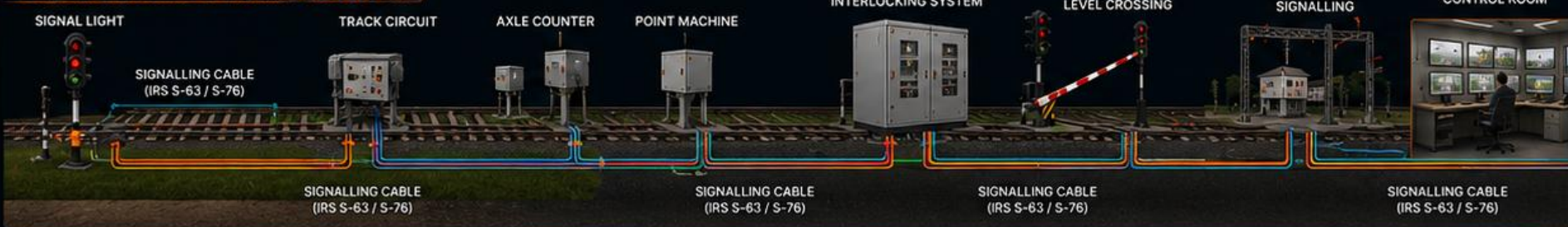
PARAMETER	IRS S-63	IRS S-76
Specification	IRS S-63	IRS S-76
Cable Type	PVC Insulated Signalling Cable	Signalling Cable for Electronic Interlocking
Conductor	Flexible Annealed Copper (Class 5 as per IS 8130)	Flexible Annealed Copper (Class 5 as per IS 8130)
Insulation	PVC (Type TI 1)	PVC (Type TI 1)
Core Identification	As per IRS S-63	As per IRS S-76
Core Arrangement	Pairs / Quads / Multi-core	Pairs / Quads / Multi-core
Sheathing	PVC (Type TM 1)	PVC (Type TM 1)
Rated Voltage	Up to 650 V AC / 1000 V DC	Up to 650 V AC / 1000 V DC
Test Voltage	2.5 kV AC for 1 minute	2.5 kV AC for 1 minute
Temperature Range	-20°C to +70°C	-20°C to +70°C
Flame Retardant	Yes (As per specification)	Yes (As per specification)
Application	Outdoor / Indoor Signalling & Telecommunication Circuits	Electronic Interlocking, Signalling & Data Circuits

Note: All tests are carried out as per relevant Indian Railways standards.

### APPLICATIONS



### TYPICAL RAILWAY SIGNALLING NETWORK



### WHY GULIX SIGNALLING CABLES?

- ✓ 100% Flexible (Class 5) - Easy to install
- ✓ Compliant to IRS S-63 & IRS S-76
- ✓ Ensures Safety & Anti-theft Protection
- ✓ Reliable Data Transmission with low attenuation
- ✓ Designed for Harsh Railway Environment
- ✓ Long Service Life & Minimal Maintenance

**GULIX CABLE**

POWERING RELIABLE CONNECTIONS.  
POWERING INDIAN RAILWAYS.

## LOCO WIRING & COACH WIRING CABLES

DESIGNED FOR INDIAN RAILWAYS.

Gulix Loco Wiring & Coach Wiring Cables are engineered as per latest RDSO specifications to deliver safe, reliable and uninterrupted performance in rolling stock applications. Built for high efficiency, durability and long service life in the most demanding environments.

### COMPLIANT TO

- ✓ RDSO Specification (Latest Issue)
- ✓ ELRS 0019 (Electrical Locomotive Rolling Stock Standard)
- ✓ CLW 0458 (Loco Wiring Cables)
- ✓ CLW 0459 (Coach Wiring Cables)
- ✓ Other Indian Railways Specifications



ENGINEERED FOR SAFETY.  
BUILT FOR INDIAN RAILWAYS.



**GULIX** CABLE  
LOCO & COACH WIRING CABLES



HIGH RELIABILITY & SAFETY



FLAME RETARDANT LOW SMOKE (FRLS)



OIL, GREASE & CHEMICAL RESISTANT



EXCELLENT ELECTRICAL PERFORMANCE



WIDE OPERATING TEMPERATURE RANGE  
-40°C TO +90°C

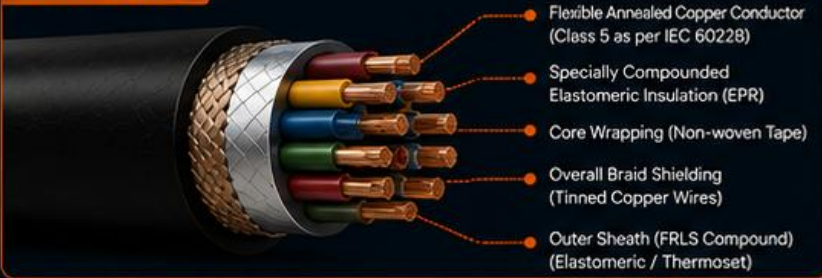


FLEXIBLE & EASY TO INSTALL



LONG SERVICE LIFE & LOW MAINTENANCE

### CONSTRUCTION



### TYPES & CONFIGURATIONS



UNSCREENED (MULTICORE)



SCREENED (T.C. BRAIDED)



OVERALL BRAIDED (HIGH FLEXIBILITY)



SINGLE CORE (FOR POWER CIRCUITS)

### TECHNICAL SPECIFICATIONS

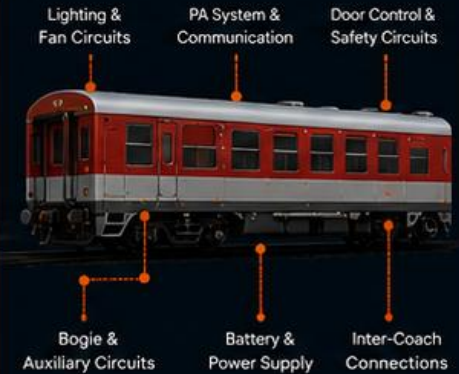
Parameter	LOCO WIRING CABLE (CLW 0458)	COACH WIRING CABLE (CLW 0459)
Standard	ELRS 0019	ELRS 0019
Voltage Grade	Up to 1100 V AC / 1500 V DC	Up to 1100 V AC / 1500 V DC
Conductor	Flexible Annealed Copper (Class 5)	Flexible Annealed Copper (Class 5)
Insulation	EPR (Ethylene Propylene Rubber)	EPR (Ethylene Propylene Rubber)
Core Identification	As per ELRS 0019	As per ELRS 0019
Separator	Non-woven Tape	Non-woven Tape
Shielding	Tinned Copper Braid	Tinned Copper Braid
Outer Sheath	FRLS (Flame Retardant Low Smoke)	FRLS (Flame Retardant Low Smoke)
Temperature Range	-40°C to +90°C	-40°C to +90°C
Flame Performance	Passes FRLS as per ELRS 0019	Passes FRLS as per ELRS 0019
Application	Electric Locomotives, MEMU/EMU, DMU & Auxiliary Power Circuits	Passenger Coaches, MEMU/EMU, DMU, Luggage Vans

### APPLICATIONS & CABLE USAGE

#### LOCO WIRING (CLW 0458)



#### COACH WIRING (CLW 0459)



### WHERE OUR CABLES ARE USED

#### ELECTRIC LOCOMOTIVES



#### LOCO WIRING APPLICATION



#### PASSENGER COACHES



#### COACH WIRING APPLICATION



#### INTER-COACH CONNECTION



#### DRIVER'S CAB & CONTROL CIRCUITS



#### AUXILIARY & CONTROL PANELS



#### BOGIES & AUXILIARY EQUIPMENT



AS PER ELRS 0019



AS PER CLW 0458 (LOCO WIRING)



AS PER CLW 0459 (COACH WIRING)



RDSO COMPLIANT



100% QUALITY TESTED



HIGH PERFORMANCE IN INDIAN RAILWAY ENVIRONMENTS



POWERING SAFER TRAINS.  
POWERING POSSIBILITIES.

# GULIX CABLE

POWERING POSSIBILITIES

## DATA CENTER CABLES

BUILT FOR SPEED. DESIGNED FOR RELIABILITY.

Gulix Data Center Cables are engineered with advanced materials and cutting-edge Electron Beam Cross Linked technology to deliver high speed performance, superior flexibility, maximum reliability and long service life for modern data centers.

### KEY BENEFITS

- High Speed Data Transmission Up to 40G / 100G / 400G
- Low Smoke Zero Halogen (LSZH) for Enhanced Safety
- Electron Beam Cross Linked Technology for Superior Performance
- High EMC Protection for Noise Free Performance
- Flame Retardant & Fire Safe
- RoHS Compliant & Environment Friendly
- Reliable Performance for 24x7 Operations

### 100% FLEXIBLE (CLASS 5) CONDUCTORS



FLEXIBLE CABLES FOR MODERN DATA CENTERS

**1** FLEXIBLE ALUMINIUM CABLE POWERED BY ELECTRON BEAM CROSS LINKED TECHNOLOGY

**2** MULTICORE COPPER CABLE

**3** POWER CABLES

- HIGH SPEED PERFORMANCE
- LOW SMOKE ZERO HALOGEN (LSZH)
- EXCELLENT EMC SHIELDING
- FLAME RETARDANT (FRLS / FR)
- FLEXIBLE & EASY ROUTING
- RoHS COMPLIANT
- 24x7 RELIABILITY & LONG LIFE

### 1 FLEXIBLE ALUMINIUM CABLE

POWERED BY ELECTRON BEAM CROSS LINKED TECHNOLOGY



FLEXIBLE ALUMINIUM CONDUCTOR (CLASS 5)

CONDUCTOR	Flexible Aluminium (Class 5)
INSULATION	E-Beam Cross Linked (FRLS / LSZH)
CORE IDENTIFICATION	As per requirement
SHIELDING	Aluminium Polyester Tape + Tinned Copper Drain Wire (Optional)
OUTER SHEATH	FRLS / LSZH (Black / Grey)
RATED VOLTAGE	Up to 1.1 kV AC
APPLICATION	High Speed Data Communication, Structured Cabling, Network Infrastructure

### 2 MULTICORE COPPER CABLE



FLEXIBLE COPPER CONDUCTOR (CLASS 5)

CONDUCTOR	Flexible Annealed Tinned Copper (Class 5)
INSULATION	E-Beam Cross Linked (FRLS / LSZH)
CORE IDENTIFICATION	As per requirement
SHIELDING	Aluminium Polyester Tape + Tinned Copper Drain Wire (Optional)
OUTER SHEATH	FRLS / LSZH (Black / Grey)
RATED VOLTAGE	Up to 1.1 kV AC
APPLICATION	Data Transmission, Control & Signal Circuits, Network & Communication Systems

### 3 POWER CABLES



FLEXIBLE COPPER CONDUCTOR (CLASS 5)

CONDUCTOR	Flexible Annealed Copper (Class 5)
INSULATION	E-Beam Cross Linked (XLPE)
CORE IDENTIFICATION	As per requirement
INNER SHEATH	LSZH (Optional)
ARMOUR (OPTIONAL)	Galvanized Steel Wire / Aluminium Wire
OUTER SHEATH	FRLS / LSZH (Black)
RATED VOLTAGE	Up to 1.1 kV AC
APPLICATION	Power Distribution, PDU, UPS, Busway & Critical Power Infrastructure

### APPLICATIONS



### WHY CHOOSE GULIX DATA CENTER CABLES?

- 100% FLEXIBLE (CLASS 5) EASY TO INSTALL
- E-BEAM CROSS LINKED TECHNOLOGY SUPERIOR RELIABILITY
- HIGH EMC PROTECTION & NOISE FREE PERFORMANCE
- LOW SMOKE ZERO HALOGEN (LSZH)
- FLAME RETARDANT & FIRE SAFE
- RoHS COMPLIANT & ENVIRONMENT FRIENDLY
- LONG SERVICE LIFE 24x7 RELIABILITY

**GULIX CABLE**  
POWERING RELIABLE CONNECTIONS.  
POWERING TOMORROW.



POWERING POSSIBILITIES

# CAT 6 & CAT 6A NETWORK CABLES

HIGH SPEED. HIGH PERFORMANCE. HIGH RELIABILITY.

Gulix Cat 6 & Cat 6A cables are engineered to deliver high speed data transmission in structured cabling systems. Manufactured with premium materials and advanced technology to ensure exceptional performance, reliability and future ready connectivity for your network.

## KEY FEATURES

- ✓ Exceeds ANSI/TIA-568.2-D & ISO/IEC 11801 Standards
- ✓ High Bandwidth for 10/100/1000BASE-T & 10GBASE-T (Cat 6A)
- ✓ Excellent NEXT, PSNEXT & Return Loss Performance
- ✓ LSZH Jacket – Low Smoke Zero Halogen, Flame Retardant
- ✓ 23 AWG Solid Bare Copper Conductors (4 Pairs)
- ✓ IDC Compatible & PoE / PoE+ / 4PPoE Ready
- ✓ RoHS Compliant & Environment Friendly



100% SOLID BARE COPPER CONDUCTOR (23 AWG)



## COMPLIANT TO

- ✓ ANSI/TIA-568.2-D
- ✓ ISO/IEC 11801
- ✓ IEC 61156-5
- ✓ RoHS Compliant



HIGH HIGH SPEED PERFORMANCE



STABLE & RELIABLE NETWORK



LOW CROSSTALK & LOW NOISE



EASY PULL & FLEXIBLE INSTALLATION



FLAME RETARDANT (LSZH)



FUTURE READY FOR HIGHER BANDWIDTH

## CONSTRUCTION



## JACKET COLOURS

- Blue
- Grey
- White
- Black
- Red
- Yellow
- Green

Note: Custom colours available on request.

## TECHNICAL SPECIFICATIONS

PARAMETER	CAT 6	CAT 6A
Standard	ANSI/TIA-568.2-D ISO/IEC 11801	ANSI/TIA-568.2-D ISO/IEC 11801
Bandwidth	250 MHz	500 MHz
Transmission Speed	10/100/1000BASE-T	10GBASE-T
Conductor	23 AWG Solid Bare Copper	23 AWG Solid Bare Copper
Insulation	HDPE	HDPE
Pairs	4 Pairs, Twisted	4 Pairs, Twisted
Separator	Cross Separator (Spline)	Cross Separator (Spline)
Outer Jacket	LSZH (Low Smoke Zero Halogen)	LSZH (Low Smoke Zero Halogen)
PoE / PoE+ / 4PPoE	Yes	Yes
Operating Temp.	-20°C to +60°C	-20°C to +60°C
Minimum Bend Radius	8 x Overall Diameter	8 x Overall Diameter
Applications	Voice, Data, PoE, 1G Ethernet, IP Cameras, Office Cabling	10 Gigabit Ethernet, Data Centers, Server Rooms, Backbone Cabling, PoE / PoE+ / 4PPoE

\* Performance supports up to 100m channel length as per standards.

## APPLICATIONS



DATA CENTERS



SERVER ROOMS & RACK CABLING



NETWORK SWITCHES & PATCH PANELS



IP SURVEILLANCE SYSTEMS



OFFICE NETWORKING



WIRELESS ACCESS POINTS



HIGH BANDWIDTH UP TO 500 MHz (CAT 6A)



EXCELLENT CROSSTALK PERFORMANCE



POE / POE+ / 4PPoE HIGH POWER SUPPORT



LSZH JACKET LOW SMOKE ZERO HALOGEN



FLEXIBLE & EASY INSTALLATION



100% QUALITY TESTED



RELIABLE CONNECTION. POWERING POSSIBILITIES.

## FS CABLES

### FIRE SURVIVAL CABLES

SAFE CIRCUITS. SAVE LIVES.





Gulix FS Cables are engineered to maintain circuit integrity during fire conditions and ensure the continued operation of critical systems. Manufactured with advanced fire resistant technology, these cables comply with global standards and perform in the most demanding life-critical applications.

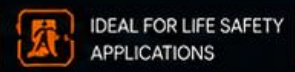
#### KEY FEATURES

-  Maintain Circuit Integrity under Fire Conditions
-  Fire Resistance up to 950°C (as per IEC 60331)
-  Low Smoke Zero Halogen (LSZH) Flame Retardant
-  High Mechanical Strength & Abrasion Resistant
-  UV & Ozone Resistant For Outdoor Use
-  RoHS Compliant & Environment Friendly
-  Tested for 90 / 120 / 180 Minutes as per IEC 60331

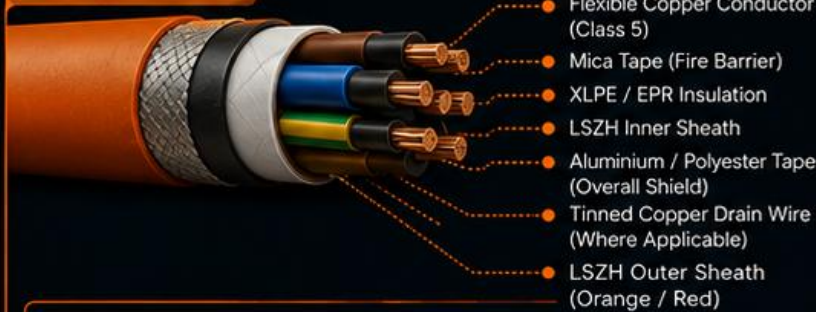


#### COMPLIANT TO

-  IEC 60331-1 / -21 / -23
-  BS 6387 (CWZ)
-  EN 50200
-  IS 10810 (Part 62)



#### CONSTRUCTION



#### AVAILABLE CONFIGURATIONS

-  Power FS Cables (1.1 kV)
-  Control & Signal FS Cables
-  Multi Core / Multi Pair
-  Armoured / Unarmoured
-  FRLS / LSZH Outer Sheath
-  Overall Shielded / Unshielded
-  Indoor / Outdoor / Duct / Direct Buried

#### TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATION
Voltage Grade	Up to 1.1 kV
Temperature Range	-20°C to +90°C
Fire Survival	Upto 950°C for 90 / 120 / 180 Minutes (as per IEC 60331)
Flame Retardant	IEC 60332-1-2
Smoke Density	IEC 61034-1 & IEC 61034-2
Halogen Free	IEC 60754-1 & IEC 60754-2
Circuit Integrity	IEC 60331-1 / -21 / -23
Standard	IEC 60331, BS 6387 (CWZ), EN 50200, IS 10810 (Part 62)
Application	Life Safety Systems requiring Circuit Integrity during Fire

#### APPLICATIONS



ENSURES CIRCUIT INTEGRITY DURING FIRE



TESTED FOR EXTREME FIRE CONDITIONS UP TO 950°C



COMPLIANT TO GLOBAL FIRE SURVIVAL STANDARDS



MANUFACTURED WITH PREMIUM QUALITY MATERIALS



RIGOROUSLY TESTED FOR SAFETY & RELIABILITY



SAFER BUILDINGS. STRONGER SYSTEMS. SAVING LIVES.

## E-BEAM IRRADIATED CABLES

CLEANER. SAFER. STRONGER.

Gulix E-Beam Irradiated Cables are manufactured using advanced electron beam (E-Beam) irradiation technology to enhance the performance of cable insulation and sheath compounds without the use of chemicals. These cables deliver superior thermal, mechanical and electrical properties ensuring long service life and reliable performance across a wide range of applications.

### E-BEAM IRRADIATION TECHNOLOGY

ADVANCED. CHEMICAL-FREE. SUSTAINABLE.

E-Beam (Electron Beam) irradiation uses high energy electrons generated by an accelerator to cross-link polymer molecules in the insulation and sheath compounds. This improves performance characteristics without the use of chemicals or by-products.



#### THE E-BEAM IRRADIATION PROCESS



RESULT: Improved performance, long service life & environmental safety

### APPLICATIONS



### COMPLIANT TO

- ✓ IEC 60502-1
- ✓ IEC 60228
- ✓ IEC 60332-1 / -2
- ✓ IEC 61034 (Series)
- ✓ IEC 60754 (Series)
- ✓ IEC 60092-350 / -351 (Marine Cables)
- ✓ IEC 61892 (Offshore Cables)
- ✓ Custom Specifications
- ✓ RoHS Compliant
- ✓ REACH Compliant

**MAX. OPERATING TEMPERATURE**  
120°C (Continuous)

**TEMPERATURE RANGE**  
-40°C to +120°C

**MIN. BENDING RADIUS**  
12 x Overall Diameter

### CONSTRUCTION

- 1 **Conductor**  
Plain or tinned copper as per IEC 60228
- 2 **Insulation**  
E-Beam cross-linked insulation compound as per IEC 60502-1
- 3 **Inner Sheath**  
E-Beam cross-linked compound (if applicable)
- 4 **Armouring (if applicable)**  
Galvanized steel wires / tape as per IEC requirements
- 5 **Outer Sheath**  
E-Beam cross-linked sheath compound  
Colour: Black (Standard)

Note: Construction may vary as per cable type, voltage grade and customer requirements.

### TECHNICAL INFORMATION

PARAMETER	VALUE / DESCRIPTION
Standards	IEC 60502-1, IEC 60228, IEC 60332-1 / -2, IEC 61034, IEC 60754, IEC 60092-350 / -351, IEC 61892, Custom Specs
Voltage Grade (U <sub>0</sub> /U)	0.6/1 kV up to 18/30 kV (or as per requirement)
Temperature Range	-40°C to +120°C
Max. Operating Temperature	120°C (Continuous)
Min. Bending Radius	12 x Overall Diameter
Flame Retardant	As per IEC 60332-1-2
Smoke Density	As per IEC 61034 (Series)
Halogen Free (Optional)	As per IEC 60754 (Series)
RoHS Compliance	Yes
Application	For fixed installation in air, in conduit, on racks, in industries, power stations, inside and outside switchgear and controlgear, underground (with protection) and other applications as per design.
Installation	Indoor, outdoor, in tray, in duct, in conduit, direct burial (with protection) as per design.

Note: Values are typical and subject to product design and customer specification.

### FEATURES & BENEFITS

- Superior thermal stability and long term performance at elevated temperatures
- Excellent mechanical strength, abrasion and impact resistance
- High electrical insulation performance and partial discharge resistance
- Low smoke, zero halogen (LSZH) option available
- No chemical by-products - safe for people and environment
- Enhanced weathering and UV resistance
- Better ageing characteristics and long service life
- Suitable for harsh environments and critical applications
- Consistent quality and performance



ECO-FRIENDLY  
CLEAN TECHNOLOGY  
NO CHEMICALS  
NO BY-PRODUCTS

### TYPICAL CABLE TYPES



### QUALITY ASSURANCE

- 100% Routine Tests
- High Voltage Tests
- Conductor Resistance Tests
- Insulation & Sheath Tests
- Flame Retardant Tests
- Smoke & Halogen Tests
- Mechanical Tests
- Dimensional Checks

## LT ABC CABLES

### AERIAL BUNCHED CABLES

SAFE. RELIABLE. DURABLE.

Gulix LT ABC (Aerial Bunched Cable) conforms to IS 14255 (Part 1) / IEC 60502-1. These cables are used for overhead power distribution up to and including 1.1 kV. The insulated phase conductors are bunched together with an insulated neutral (figure-8 construction) without colour coding.

- HIGH SAFETY**  
Reduced risk of accidental contact & short circuit
- WEATHER & UV RESISTANT**  
UV, IR & moisture resistant outer sheath
- EXCELLENT PERFORMANCE**  
Low voltage drop & consistent performance
- LONG SERVICE LIFE**  
Designed for minimum maintenance

#### STANDARDS & CREDENTIALS

- IS 14255 (Part 1)  
Indian Standard
- IEC 60502-1  
International Standard
- IS 7098 (Part 1)  
Insulation Standard
- IEC 60228  
Conductor Standard
- EN 50483-3 / NFC 33-209  
European Standard
- RoHS Compliant

Tested & verified for quality, safety & performance across global benchmark standards.

#### CONSTRUCTION (As per IS 14255 Part 1 / IEC 60502-1)



BARE MESSENGER (STRANDED ACSR)



#### FEATURES & BENEFITS

- Enhanced public safety
- Reduced risk of power theft
- Weather & UV resistant
- Low voltage drop & consistent performance
- High mechanical strength
- Suitable for all weather conditions
- Long service life with minimum maintenance
- Economical & reliable solution
- Corrosion & chemical resistant
- Environment friendly

#### INSTALLATION ADVANTAGES

- Lightweight & easy to handle
- Quick & easy installation
- Can be installed on existing poles
- No special tools required
- Cost effective installation



#### COMPLIANT TO

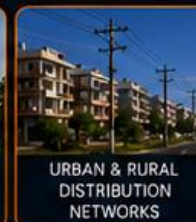
- IS 14255 (Part 1)
- IEC 60502-1
- IS 7098 (Part 1)
- IEC 60228
- EN 50483-3 / NFC 33-209
- IEC 61034 (Series)
- IEC 60754 (Series)
- RoHS Compliant

**RATED VOLTAGE**  
U<sub>0</sub>/U (Um)  
0.6/1 (1.2) kV

**MAX. OPERATING TEMPERATURE**  
90°C

**MIN. BENDING RADIUS**  
12 x Overall Diameter

#### APPLICATIONS



# UNINYVIN CABLES NYLON BRAIDED & LACQUERED FLEXIBLE

For UPS Interface &  
Critical Power Applications



**ENGINEERED FOR RELIABILITY.  
BUILT FOR PERFORMANCE.**

- High Flexibility**  
Easy routing in confined spaces
- High Reliability**  
Uninterrupted power in critical systems
- RoHS Compliant**  
Environment friendly & lead free
- Superior Insulation**  
Heat, Oil & Ozone resistant
- Nylon Braided**  
Excellent mechanical protection
- Lacquered Finish**  
Improved, abrasion, moisture & chemical resistance



## CONSTRUCTION

- Conductor**  
Fine Stranded Tinned Copper as per IS 8130 / IEC 60228 (Class 5)
- Insulation**  
Elastomeric Insulation (HEPR / EPR Type) as per IS 17048 / IEC 60502-1
- Braid**  
Nylon Braiding High Strength & Abrasion Resistant
- Finish**  
Lacquered Finish (Impregnated with Special Lacquer for Extra Protection)

## KEY BENEFITS

- |   |  |  |  |
|---|--|--|--|
| <b>Extra Flexible</b><br>Easy installation & routing                            | <b>Elastomeric Insulation</b><br>High dielectric strength & thermal resistance | <b>Nylon Braided</b><br>Superior mechanical protection     | <b>Lacquered Finish</b><br>Moisture, oil & chemical resistance   |
| <b>High Reliability</b><br>Designed for uninterrupted power in critical systems | <b>Long Service Life</b><br>Reduced maintenance, high durability               | <b>Safe &amp; Environment</b><br>RoHS Compliant, lead free | <b>Wide Usability</b><br>Suitable for UPS, DG Sets, Control Panels, DC Systems & other critical power uses |

## APPLICATIONS

- |                                  |                         |                                 |                                    |
|----------------------------------|-------------------------|---------------------------------|------------------------------------|
| <b>UPS Interface Connections</b> | <b>Battery Banks</b>    | <b>Inverters</b>                | <b>Rectifiers</b>                  |
| <b>DG Set Connections</b>        | <b>DC Power Systems</b> | <b>Control Panels &amp; MCC</b> | <b>Critical Power Distribution</b> |

## IDENTIFICATION



## INSTALLATION GUIDELINES

- Use suitable lugs / glands
- Avoid excessive pulling
- Min. Bend Radius 4 x Overall Diameter
- Install in well-ventilated & dry locations
- Protect from direct sunlight, heat sources & sharp edges
- Follow system design & safety regulations

## COMPLIANT TO

- IS 17048 : 2018 (HEPR Insulated Cables)
- IS 8130 : 2013 (Class 5 Flexible Conductors)
- IEC 60228 : 2005 (Class 5 Conductors)
- RoHS Compliant
- REACH Compliant

**RATED VOLTAGE**  
600/1000 V AC  
 **TEMPERATURE RANGE**  
-15°C to +90°C  
(For continuous operation)

## WELDING CABLES BUILT TO DELIVER. ENGINEERED TO LAST.

Gulix Cable welding cables are heavy duty, extra flexible cables designed for connection of welding machines to electrode holders and work clamps. Manufactured in accordance with international standards, these cables deliver exceptional flexibility, high current carrying capacity, excellent mechanical strength and long service life even in the most rugged working conditions.

### APPLICATIONS

- ② Arc welding machines
- ② Electrode holders
- ③ Work (earth) clamps
- ② Interconnecting leads between power source and welding equipment
- ② Portable & stationary welding equipment
- ② Robotic & automated welding systems



### CONSTRUCTION (As per IS 9857)

- ① **CONDUCTOR**  
Flexible Electrolytic Copper, Class 5 as per IS 8130
- ② **INSULATION**  
Heat Resistant Elastomeric Compound (Type E4)
- ③ **SHEATH**  
Heat, Abrasion, Ozone and Oil Resistant Elastomeric Compound (Type EMS)



### KEY TECHNICAL STRENGTH

- Extra Flexible for easy handling and installation
- High Current Carrying Capacity  
Designed for heavy duty welding applications
- Heat & Flame Resistant  
Withstands high temperature and sparks
- Abrasion, Oil & Ozone Resistant  
Suitable for harsh working environments
- High Mechanical Strength  
Superior tensile strength, impact & tear resistance
- Long Service Life  
Engineered for extended durability and reliable performance

### COMPLIANT TO

- ✓ IS 9857 : 1981
- ✓ IS 8130 : 2013
- ✓ RoHS Compliant
- ✓ REACH Compliant
- ✓ Custom Specifications

**RATED VOLTAGE**  
Up to 100 V DC

**MAX. CONDUCTOR TEMPERATURE**  
90°C

**SHORT CIRCUIT TEMPERATURE**  
250°C (Max. 5 sec.)



### TECHNICAL SPECIFICATION

PARAMETER	DESCRIPTION
Conductor	Flexible Electrolytic Copper, Class 5 as per IS 8130
Insulation	Heat Resistant Elastomeric Compound (Type E4)
Sheath	Heat, Abrasion, Ozone & Oil Resistant Elastomeric Compound (Type EMS)
Colour	Black
Voltage Grade	Up to 100 V DC
Temperature Range	-25°C to +90°C
Min. Bending Radius	6 x Overall Diameter
Applicable Standards	IS 9857, IS 8130, IEC 60228 (Class 5) Custom Specifications



### E-BEAM IRRADIATION TECHNOLOGY

E-Beam (Electron Beam) irradiation cross-links the polymer molecules in the insulation and sheath, enhancing the performance characteristics without the use of chemicals or by-products.

- Improved Thermal Stability
- Enhanced Mechanical Strength
- Better Abrasion & Tear Resistance
- No Chemicals
- Environment Friendly
- Safe & Sustainable

### ADVANTAGES

- ✓ Reliable performance in high current welding applications
- ✓ Withstands harsh environments – heat, oil, ozone & abrasion
- ✓ Excellent flexibility for ease of use
- ✓ Safe operation with low voltage rating
- ✓ Consistent quality for long life and minimum downtime
- ✓ Available in custom configurations as per requirement

### ELECTRICAL & MECHANICAL CHARACTERISTICS

Max. Conductor Resistance at 20°C (Ω/km)	16	25	35	50	70	95	120	185
		1.24	0.795	0.565	0.393	0.277	0.210	0.164
Dielectric Strength (AC, 50 Hz, 1 Min.)	2 kV							
Insulation Resistance at 20°C (Min.)	10 MΩ x km							
Voltage Test (DC, 1 Min.)	Up to 100 V DC							
Minimum Pulling Force	15 N/mm <sup>2</sup> of conductor							
Tensile Strength (Min.)	≥ 10.3 N/mm <sup>2</sup>							
Elongation at Break (Min.)	200%							
Hot Set Test (90°C ± 2°C, 7 x 4 hrs)	No cracking							
Cold Bend Test (-25°C ± 2°C, 4 hrs)	No cracking							
Flame Retardant Test (Single Vertical Wire)	Shall be Flame Retardant							
Oil Resistance (IPM 902 Oil, 70°C x 4 days)	Tensile variation: Max. ±25%, Volume variation: Max. ±25%							
Ozone Resistance (50 ppm, 20% strain, 48 hrs)	No cracking							

Note: Values are typical and subject to product design and customer specification.

### TYPICAL APPLICATION INDUSTRIES



### IDENTIFICATION & MARKING (Example)



### ADDITIONAL TECHNICAL STRENGTHS



INTERNATIONAL  
STANDARD  
COMPLIANCE



ADVANCED  
E-BEAM  
TECHNOLOGY



HIGH PERFORMANCE  
IN EXTREME  
CONDITIONS



CHEMICAL & OIL  
RESISTANT



SUPERIOR FLEXIBILITY  
& EASY HANDLING



TRUSTED BY  
INDUSTRIES  
WORLDWIDE

## REELING & UNREELING CABLES

WITH ELASTOMERIC INSULATION

BUILT FOR CONTINUOUS MOTION. ENGINEERED TO PERFORM.

Gulix Reeling & Unreeling Cables (commonly known as Trailing / CRD Cables) are specially designed for dynamic applications involving continuous reeling and unreeling in harsh industrial environments.

Manufactured and tested in accordance with IS 9968 (Part-1) for elastomeric/rubber cables or IS 14494 for specialized mining trailing cables, these cables ensure superior flexibility, tensile strength and long service life.

Drums used for winding must conform to IS 10418, ensuring safe operation and extended cable life.

### CONSTRUCTION



- 1 Conductor**  
Extra flexible stranded copper as per Class 5 of IS 8130 / IEC 60228
- 2 Insulation**  
Elastomeric compound (HEPR / EPR / PCP) as per IS 9968 (Part-1) / IS 14494
- 3 Core Identification**  
Black cores with white numbering
- 4 Inner Sheath / Bedding**  
Elastomeric bedding (where required)
- 5 Strength Member (Optional)**  
Textile / Aramid yarn for enhanced mechanical strength
- 6 Outer Sheath**  
Elastomeric compound Oil, abrasion, ozone & weather resistant (EM5 Type)

### KEY FEATURES

- Extra High Flexibility**  
Designed for repetitive bending and continuous reeling / unreeling
- High Tensile & Tear Strength**  
Withstands high mechanical stress and harsh industrial conditions
- Excellent Abrasion, Oil, Ozone & UV Resistance**  
Suitable for tough environments
- Flame Retardant**  
As per IEC 60332-1-2 (Optional)
- Wide Temperature Range**  
-25°C to +90°C
- RoHS Compliant**  
Environment friendly & lead free

### APPLICATIONS

- Cable Reels & Hose Reels
- Cranes & Hoists
- RTGs, RMGs & Gantry Cranes
- Stacker Reclaimers
- Ship-to-Shore Cranes
- Mobile & Harbour Cranes
- Mining & Tunnelling Equipment
- Automated Material Handling Systems
- Stage & Theatre Systems
- Winders, Unwinders & Retractable Systems



### TECHNICAL SPECIFICATIONS

PARAMETER	REQUIREMENT
Conductor	Extra Flexible Stranded Copper, Class 5 as per IS 8130 / IEC 60228
Insulation	Elastomeric (HEPR / EPR / PCP) as per IS 9968 (Part-1) / IS 14494
Core Identification	Black cores with white numbering
Inner Sheath / Bedding	Elastomeric Bedding (Where required)
Strength Member (Optional)	Textile / Aramid Yarn
Outer Sheath	Elastomeric Compound (EM5 Type)
Voltage Grade	Uo/U (Um) : 0.6/1 (1.2) kV
Temperature Range	-25°C to +90°C (Fixed) -25°C to +90°C (Flexing)
Min. Bending Radius	6 x Overall Diameter (Fixed) 8 x Overall Diameter (During Reeling)
Flame Retardant	As per IEC 60332-1-2 (Optional)
Oil & Chemical Resistance	Good
Application	Indoor / Outdoor / Industrial

Note: Other voltage grades and constructions available on request.

### COMPLIANCE & STANDARDS

- IS 9968 (Part-1) – For Elastomeric Insulated Reeling & Unreeling Cables
- IS 14494 – For Specialized Mining Trailing Cables
- IS 10418 – For Drums for Reeling & Unreeling Cables
- IS 8130 / IEC 60228 – Conductors
- IEC 60332-1-2 – Flame Retardant (Optional)
- RoHS Compliant



### E-BEAM IRRADIATION TECHNOLOGY

E-Beam (Electron Beam) irradiation cross-links the polymer molecules in the insulation and sheath, improving:

- Thermal Stability
- Mechanical Strength
- Abrasion & Tear Resistance
- Chemical & Oil Resistance
- Long Service Life



### ELECTRICAL & MECHANICAL CHARACTERISTICS

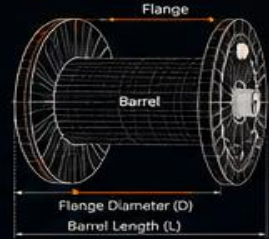
PARAMETER	TEST METHOD	REQUIREMENT
Voltage Grade	IS 9968 / IEC 60502	0.6/1 (1.2) kV AC
Dielectric Strength	IS 9968	2 kV AC (Min.)
Insulation Resistance	IS 9968	10 MΩ x km (Min.) at 20°C
Minimum Pulling Force	IS 9968	15 N/mm <sup>2</sup> of total conductor area (Min.)
Tensile Strength (Min.)	IS 9968	≥ 10.3 N/mm <sup>2</sup>
Elongation at Break (Min.)	IS 9968	≥ 150%
Cold Bend Test (-25°C ± 2°C)	IS 9968	No cracking
Hot Set Test (90°C ± 2°C, 7 x 4 hrs)	IS 9968	Elongation variation: ± 25% Max.
Ozone Resistance	IS 9968	No cracking
Oil Resistance (IRM 902 Oil, 70°C x 4 days)	IS 9968	Tensile variation: ± 25% Max.

### DRUMS FOR REELING & UNREELING CABLES

Drums used for winding Reeling & Unreeling Cables must conform to IS 10418.

These drums are designed to ensure:

- ▶ Proper winding geometry
- ▶ Adequate flange and barrel strength
- ▶ Controlled operator tension
- ▶ Prevention of cable bulging, kinking or snapping
- ▶ Safe and smooth reeling/unreeling operations



### IDENTIFICATION (EXAMPLE)



### IMPORTANT NOTES

- Cables are not to be used for lifting.
- Regular visual inspection recommended.
- Avoid over-tensioning during operation.
- Use appropriate cable size as per load and drum capacity.

## MEDIUM VOLTAGE COVERED CONDUCTOR (MVCC)

ACCORDING TO EN 50397-1

Gulix MVCC (Medium Voltage Covered Conductor) cables are specifically engineered for reliable overhead power transmission and distribution in aerial installations. Designed for harsh environments, they deliver superior mechanical protection, high electrical performance and long service life with high resistance to track, UV radiation, abrasion and weathering.

### CONSTRUCTION (EN 50397-1)

- Conductor**  
Circular stranded aluminium (EN 60228, Class 2)
- Conductor Screen**  
Extruded semi-conductive cross-linked layer
- Insulation (XLPE)**  
Cross-linked polyethylene (XLPE) insulation for excellent electrical performance
- Track Resistance / UV Resistant HDPE/XLPE Sheath**  
Specially formulated outer sheath provides high track resistance, UV radiation resistance, abrasion resistance and mechanical protection

GULIX MVCC 11 kV EN 50397-1

### CROSS SECTION



### KEY FEATURES & BENEFITS

- Designed for continuous reeling & unreeling operations
- High short-circuit current carrying capacity
- Excellent mechanical strength and abrasion resistance
- UV, ozone, moisture & chemical resistant
- High tracking resistance & corrosion resistant
- Flame retardant (as per IEC 60332-1-2)
- Low smoke & halogen free (Option available)
- Long service life with minimum maintenance
- Concentric conductor provides earth continuity & touch safety

### COMPLIANCE & STANDARDS

- EN 50397-1 (Covered conductors for overhead lines)
- EN 60228 (Conductors of insulated cables)
- HD 620 S2 (CENELEC)
- IEC 60502-2 (Where applicable for accessories)
- IEC 60332-1-2 (Flame retardant)
- RoHS Compliant
- REACH Compliant

### OPERATING CONDITIONS

- Rated Voltage ( $U_0/U$ ): Up to 11 kV ( $U_m = 12$  kV)
- Max. Conductor Temp.: 90 °C
- Ambient Temp. Range: -40 °C to +90 °C
- Short-circuit Temp.: 250 °C (Max. 5 sec.)

### BUILT FOR REAL-WORLD CHALLENGES



### TYPICAL APPLICATIONS



### NOTE:

- Other cross sections, constructions & drum lengths are available on request.
- All tests are performed at ambient temperature unless specified otherwise.

### MARKING (Example)

GULIX MVCC 11 kV EN 50397-1 YYYY M XXX m

Brand Name Cable Type Voltage Grade ( $U_0/U$ ) Standard Reference Year of Manufacture Meter Marking

Inkjet printed for permanence on the outer sheath.

### IDENTIFICATION

Insulation: Natural (XLPE) with printed number (White)  
Outer Sheath: Black  
Other colours available on request.



### TRACK RESISTANCE (EN 50397-1)

Requirement	Test Method
Outer sheath shall have high tracking resistance.	IEC 60587 (Method A)
Solution: 0.1% NH4Cl	
Voltage: As per EN 50397-1 Duration: 6 hours No breakdown shall occur.	

### ADVANTAGES OF MVCC CABLES

- No separate earth wire required (concentric conductor)
- High flexibility for easy handling & reeling
- Provides earth continuity through conductor screen
- Enhanced safety against electric shock and step voltage
- Reduces installation time & cost
- Lower installation and maintenance cost
- Excellent performance in polluted & saline environments
- Long service life & high reliability

### IMPORTANT NOTES

- Cables are not to be used for lifting.
- Avoid over-tensioning during operation.
- Regular visual inspection recommended.
- Use appropriate cable size as per load and drum capacity.
- Ensure correct installation & termination as per standard.

### COMPLIANCE & TESTS

- Designed, manufactured & type tested as per EN 50397-1
- Conductor: EN 60228
- Insulation: XLPE as per HD 620 S2
- Routine tests as per EN 50397-1
- Flame Retardant test (if required)
- RoHS Compliant



## ELASTOMERIC CABLES

ENGINEERED FOR EXTREME PERFORMANCE.  
BUILT FOR RELIABILITY.

Gulix Elastomeric Cables are engineered for superior performance in demanding industrial, outdoor and harsh environment applications. Designed and manufactured as per international and Indian Standards, these cables deliver excellent electrical, mechanical and thermal performance with outstanding resistance to heat, oil, ozone, UV, abrasion and weather.

### CONSTRUCTION (Typical for Single Core)

- CONDUCTOR**  
Flexible Tinned Copper (Class 5) / Plain Annealed Copper (Class 5) as per IS 8130 / IEC 60228
  - CONDUCTOR SCREEN**  
Extruded Semi-conductive Elastomeric Compound
  - INSULATION**  
Elastomeric Insulation (EPR / EPR Type 3 / EPDM / XLPO / EVA / Silicone Rubber) as per applicable standards
  - INNER SHEATH**  
Elastomeric Compound
  - OUTER SHEATH**  
Elastomeric Compound (Type EM5 / EMB as per IS 9968 (Pt.1) / IS 14994 / IEC 60502-1)
- COLOUR:** Black (Standard)  
Other colours on request



### KEY FEATURES & BENEFITS

- Excellent resistance to heat, oil, ozone, UV radiation, moisture and chemicals
- High mechanical strength and abrasion resistance
- Flexible, easy to install and maintain
- Excellent electrical properties and reliability
- Flame retardant & self-extinguishing (as per applicable standards)
- Outstanding resistance to weathering and environmental stress
- Long service life with low maintenance and high reliability

### TYPICAL APPLICATIONS



### ELASTOMERIC COMPOUND OPTIONS

<b>EPR</b> (EPR Type 3)  Excellent electrical properties, mechanical strength and heat resistance.	<b>EPDM</b>  Excellent resistance to ozone, weather, water and steam.	<b>XLPO</b>  Higher thermal stability, low moisture absorption, improved electrical properties.	<b>SILICONE</b>  Wide temperature range, high flexibility and excellent chemical resistance.	<b>EVA</b>  Excellent flexibility and low temperature performance.
---	---	---	--	--

### APPLICABLE STANDARDS

- IS 14994 : 2010 – Elastomeric insulated cables (up to and including 33 kV)
- IS 9968 (Part 1) : 1991 – Elastomeric insulated cables for working voltages up to and including 1100 V
- IS 9968 (Part 2) : 1992 – Elastomeric insulated cables for working voltages above 1100 V up to and including 33 kV
- IS 9857 : 1981 – Specification for welding cables
- IEC 60502-1 – Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV (Um = 36 kV) – Part 1
- Other international standards & customer specifications on request

### RATED VOLTAGE RANGE

- Up to and including 1100 V as per IS 9968 (Part 1)
- Above 1100 V up to and including 33 kV as per IS 9968 (Part 2) & IS 14994
- From 1.1 kV up to 33 kV as per IEC 60502-1



MULTI CORE AND CUSTOM CONFIGURATIONS AVAILABLE ON REQUEST

### ELECTRICAL CHARACTERISTICS

- Insulation Resistance at 90 °C (Min.) 100 MQ.km
- AC Test Voltage (50 Hz) 3.5 kV for 1 min (3.3 kV) / 6.5 kV for 1 min (6.6 kV) / DC Test Voltage 11 kV for 1 min (11 kV) As per IEC 60502-1
- Maximum Conductor Operating Temperature 90 °C (Normal) 250 °C (Short Circuit)
- Short Circuit Temperature (Max on req. test)
- Minimum Bending Radius

### MECHANICAL & ENVIRONMENTAL PERFORMANCE

- |                                |                  |
|--------------------------------|------------------|
| Abrasion Resistance            | Excellent        |
| Oil & Chemical Resistance      | Excellent        |
| Ozone Resistance               | Excellent        |
| UV Resistance                  | Excellent        |
| Weather Resistance             | Excellent        |
| Water & Moisture Resistance    | Excellent        |
| Operating Temperature Range    | -40 °C to +90 °C |
| Installation Temperature Range | -20 °C to +60 °C |

### TRACKING RESISTANCE (IS 14994)

Elastomeric insulation and sheath offer high tracking resistance and are suitable for installation in areas prone to surface tracking and pollution.

Voltage Grade	CTI (Min.)
Up to 1.1 kV	250
> 1.1 kV to 3.3 kV	400
> 3.3 kV to 6.6/11 kV	600

Test Method: IEC 60112

### FIRE PERFORMANCE

Flame Retardant	As per IEC 60332-1-2
Smoke Density	IEC 61034 (Opt.)
Halogen Free	IEC 60754 (Opt.)
Acid Gas Emission	IEC 60754 (Opt.)

Other fire performance tests available on request.

### COMPLIANCE & TESTS

- Designed, manufactured & type tested as per applicable standards
- Conductor: IS 8130 / IEC 60228
- Insulation: As per IS 9968 (Pt.1 / Pt.2), IS 14994 / IEC 60502-1
- Routine Tests: As per applicable standards
- Flame Retardant Test (if required)
- RoHS Compliant



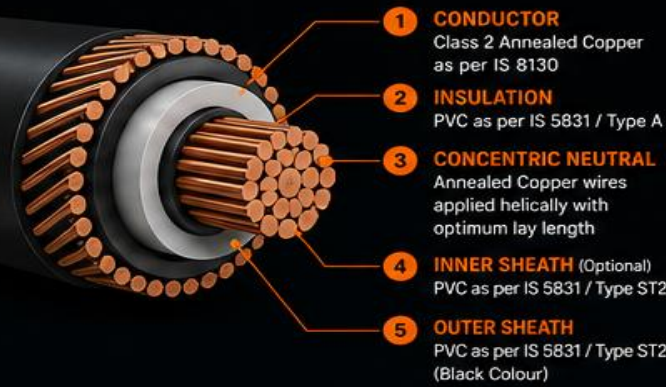
## ANTI THEFT CABLE

**STOP POWER THEFT.  
SECURE YOUR NETWORK.**

Gulix Anti Theft Cables are specially designed Low Voltage power cables with concentrically applied neutral wires over the insulation. This unique construction makes illegal tapping practically impossible without cutting the cable, ensuring uninterrupted power supply, revenue protection and enhanced safety.



### CONSTRUCTION (Typical for Single Core)



The concentrically laid neutral wires act as a protective barrier, eliminating access to phase conductors and preventing electricity theft effectively.

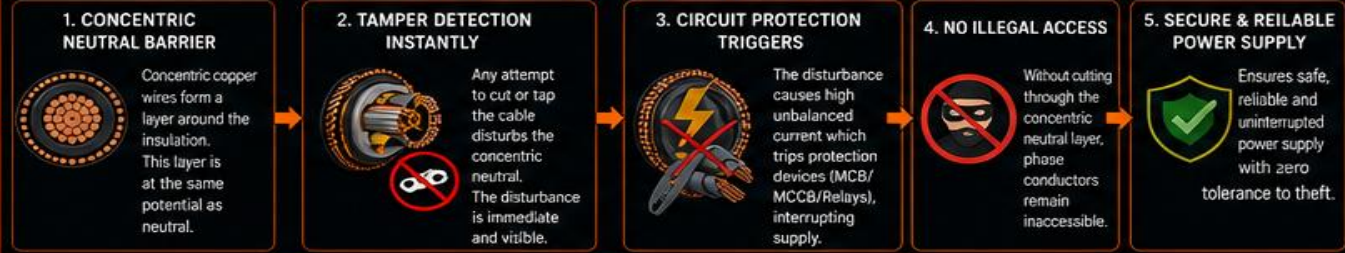
### KEY FEATURES

- Concentric neutral design prevents illegal tapping and theft
- High short-circuit current carrying capacity
- Excellent mechanical strength and abrasion resistance
- Moisture, UV and chemical resistant outer sheath
- Flame retardant & self-extinguishing
- Easy to install and maintain
- Long service life with high reliability
- Environment friendly RoHS compliant (Option)

### TYPICAL APPLICATIONS



### HOW ANTI THEFT CABLE PREVENTS POWER THEFT



### TECHNICAL ADVANTAGES

- Prevents revenue losses due to power theft
- Improves system stability & reliability
- Eliminates overheating at illegal joints
- Reduces risk of fire hazards
- Protects critical infrastructure
- Enhances public safety
- Low maintenance and long operational life
- Cost effective solution for utilities

### STANDARDS & COMPLIANCE

- IS 9968 (Part 1) : 1988 – Concentric Neutral Cables
- IS 14494 : 2017 – Concentric Neutral Cables
- IEC 60502-1 : 2021 – Power Cables with Extruded Insulation
- Also available as per IEC 60228, IS/IEC 60332-1 (Flame Retardant), IEC 60754, IEC 61034, IS/IEC 60811 series (Test Methods)



### TECHNICAL DATA

Rated Voltage (Uo/U)	Up to 1.1 kV
AC Test Voltage (50 Hz)	3.5 kV for 5 min
Max. Conductor Temp.	70 °C (Normal) 90 °C (Emergency)
Short Circuit Temp.	160 °C (Max.)
Min. Bending Radius	12 x Overall Diameter (Fixed) 15 x Overall Diameter (During Laying)
Installation	Direct Burial / Duct / Tray
Operating Temp.	-20 °C to +70 °C
Flame Retardancy	As per IEC 60332-1-2
Smoke & Halogen	Low Smoke, Halogen Free (Option)

### IDEAL FOR PREVENTING THEFT IN



**ANTI THEFT CABLE IS NOT JUST A CABLE,  
IT IS A SECURITY SOLUTION FOR YOUR POWER NETWORK.**

### AVAILABLE CORE CONFIGURATIONS



**THEFT PROOF  
BY DESIGN**



**MAXIMUM SAFETY  
& PROTECTION**



**HIGH SHORT CIRCUIT  
CAPACITY**



**EXCELLENT MECHANICAL  
STRENGTH**



**FLAME RETARDANT  
& LOW SMOKE**



**EASY INSTALLATION  
& MAINTENANCE**



**BUILT TO MEET REQUIREMENTS  
FOR UTILITIES**

# GULIX CABLE

POWERING POSSIBILITIES

## SHIP WIRING CABLES

AS PER EED-50-12 & EED-50-13

Engineered for safe, reliable and continuous performance in marine and offshore environments.

Manufactured as per EED-50-12 (Power, Control & Lighting Cables) and EED-50-13 (Instrumentation & Signal Cables) for use on board ships, offshore units and marine applications.




### KEY FEATURES

-  **Flame Retardant**  
Complies with IEC 60332-1-2
-  **Low Smoke & Halogen Free (LSHF) Options**  
As per IEC 60754-1 / IEC 60754-2 (Option)
-  **Oil & Chemical Resistant**  
Resistant to lubricating oils, fuels and most chemicals encountered on board
-  **Moisture & Sea Water Resistant**  
EPR sheath provides excellent resistance to moisture and salt water
-  **Ozone & UV Resistant**  
Suitable for exposed and open deck environment
-  **High Flexibility**  
Easy installation in confined spaces
-  **Wide Temperature Range**  
-40 °C to +120 °C (Continuous Operation)  
40000 Hours Life
-  **Robust & Reliable**  
Designed for long service life in harsh marine conditions


### APPLICATIONS



### ELECTRICAL & MECHANICAL PERFORMANCE

-  High short-circuit current carrying capacity
-  Excellent mechanical strength and abrasion resistance
-  Moisture, UV and chemical resistant outer sheath
-  -40 °C to +120 °C (Continuous Operation)  
40000 Hours Life
-  Easy to install and maintain
-  Long service life with high reliability

### COMPLIANT TO INTERNATIONAL STANDARDS

- 
  - EED-50-12 (Power, Control & Lighting Cables)
  - EED-50-13 (Instrumentation & Signal Cables)
  - IEC 60332-1-2 (Flame Retardant)
  - IEC 60754-1 / 60754-2 (Halogen Free Options)
  - IEC 61034-2 (Smoke Density)
  - IEC 60092 Series (Marine Cables)



### TYPE APPROVALS



### ENGINEERED FOR MARINE EXCELLENCE



### WHY CHOOSE GULIX CABLESHIP WIRING CABLES?

-  Designed for Marine & Offshore Environment
-  High Safety & Reliability
-  Excellent Electrical & Mechanical Performance
-  Trusted by Leading Class Societies
-  Consistent Quality, Global Standards
-  Powering Possibilities, Delivering Trust.



-  FLAME RETARDANT
-  LOW SMOKE & HALOGEN OPTIONS
-  OIL & CHEMICAL RESISTANT
-  MOISTURE & SEA WATER RESISTANT
-  UV & OZONE RESISTANT
-  ROBUST & RELIABLE
-  ENGINEERED FOR SAFETY

STRONGER CONNECTIONS. SMARTER NETWORKS.  
**POWERING POSSIBILITIES.**

## NETWORK CABLES

COMPLETE CONNECTIVITY. ENGINEERED FOR RELIABILITY.

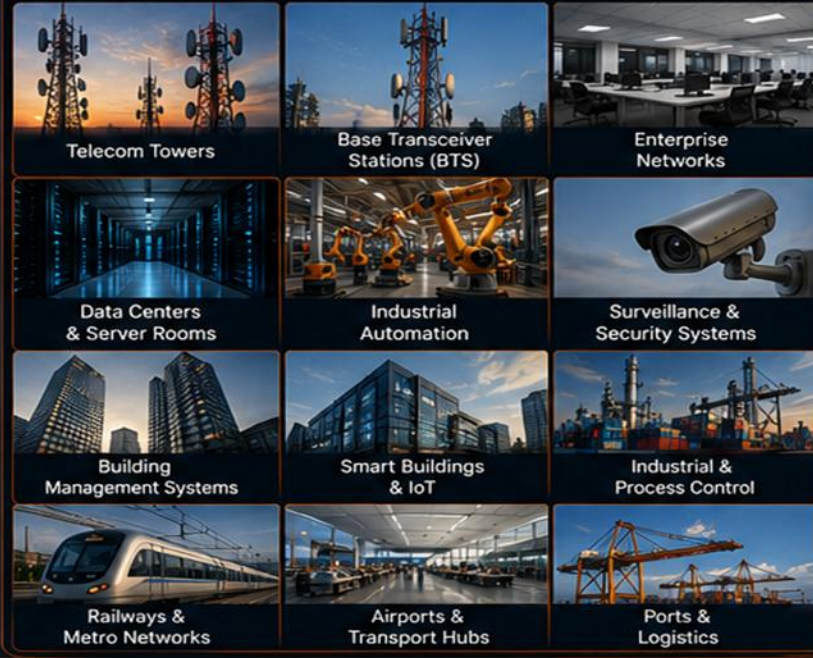
Gulix Network Cables are engineered to deliver high speed connectivity with superior signal integrity, low attenuation and maximum reliability. Ideal for data communication in industrial, commercial and infrastructure networks.

- High Speed Data Transmission
- Low Attenuation & Crosstalk
- Excellent Signal Integrity
- Flexible & Easy to Install
- RoHS Compliant & Environment Friendly
- Wide Operating Temperature -40°C to +120°C
- 40000 Hours Continuous Life

### GULIX CABLE



### APPLICATIONS



### KEY FEATURES

- High Speed Data Transmission
- Excellent Signal Integrity
- Low Attenuation & Crosstalk
- Flame Retardant, Low Smoke, Zero Halogen (FRLS / LSZH Options)
- UV, Oil, Moisture & Weather Resistant
- Flexible, Durable & Easy to Install
- RoHS Compliant & Environment Friendly
- Wide Operating Temperature -40°C to +120°C
- 40000 Hours Continuous Life



MADE FOR INDIAN CONDITIONS

### TYPES OF NETWORK CABLES

#### POWER CABLES (MULTICORE)



- 2 Core x 10 Sq.mm
- 2 Core x 16 Sq.mm
- 3 Core x 10 Sq.mm
- 3 Core x 16 Sq.mm
- 4 Core x 10 Sq.mm
- 4 Core x 16 Sq.mm
- 1.1 kV Grade
- FRLS / LSZH Sheath

#### DATA CABLES (COPPER)



- CAT 5e
- CAT 6
- CAT 6A
- 23 AWG / 24 AWG
- UTP / FTP
- LSZH / PVC Sheath

#### CONTROL & SIGNAL CABLES



- Multi Pair (Shielded/Unshielded)
- Overall Foil Shield
- LSZH / PVC Sheath
- Flame Retardant
- Low Capacitance

#### TELECOM CABLES



- Copper Telecom Cables
- Pair / Quad Cables
- PVC / FRLS Sheath
- Indoor / Outdoor Use

#### ETHERNET PATCH CABLES



- Cat 5e / Cat 6 / Cat 6A
- Patch Cords
- High Flexibility
- Molded Strain Relief
- Snagless Boot

### BENEFITS

- Reliable & High Speed Data Communication
- Improved Network Performance & Efficiency
- Reduced Downtime & Maintenance
- Future Ready for High Bandwidth Applications
- Long Term Durability & Cost Effectiveness

### COMPLIANCE STANDARDS

- ISO/IEC 11801
- TIA/EIA 568
- RoHS Compliant
- TIE 6073-1
- IEC 61034
- CE Certified

### ELECTRICAL PERFORMANCE

Parameter	Typical Value
Characteristic Impedance	100 ± 15 Ω
DC Resistance (Max.)	9.5 Ω / 100m
Insulation Resistance (Min.)	5000 MΩ.km
Capacitance Mutual (Max.)	5.6 nF / 100m
Voltage Rating	300 / 500 V (Power) 72 V (Data)
Frequency Range	Up to 250 MHz (Cat6A)
Propagation Delay Skew (Max.)	45 ns / 100m

### MECHANICAL PERFORMANCE

Parameter	Typical Value
Minimum Bending Radius	4 x Overall Diameter
Operating Temperature	-40°C to +120°C
Installation Temperature	0°C to +50°C
Sheath Material	PVC / LSZH / FRLS
Flame Retardant	IEC 60332-1
Smoke Density	IEC 61034
Halogen Content	IEC 60754 (Low Halogen)

### CONSTRUCTION (TYPICAL)



- Conductor Bare Copper / Solid or Stranded
- Insulation HDPE
- Pair Assembly Twisted Pairs
- Shield (If Applicable) Al Foil / Braid
- Outer Sheath PVC / LSZH / FRLS

- High Speed Performance
- Low Signal Loss
- Low Crosstalk
- UV & Moisture Resistant
- Flame Retardant
- Oil & Chemical Resistant
- RoHS Compliant
- Easy Installation



ENGINEERED FOR PERFORMANCE

TRUSTED BY PROFESSIONALS

GLOBAL QUALITY STANDARDS

RELIABLE CONNECTIVITY EVERYWHERE

BUILT FOR TODAY READY FOR TOMORROW

STRONGER CONNECTIONS. SMARTER NETWORKS. POWERING POSSIBILITIES.

# SUBMERSIBLE FLAT CABLES

AS PER IS 694 & IS 9968

**BUILT TO DELIVER POWER. EVEN UNDERWATER.**

Gulix Submersible Flat Cables are specially designed and manufactured for submersible pump sets and underwater applications. Manufactured as per IS 694 & IS 9968, they deliver superior performance, long service life and maximum safety even in the toughest water conditions.



### CONSTRUCTION (TYPICAL)

**3 CORE FLAT CABLE** (As per IS 694)

- Flexible Copper Conductor (Class 5)
- PVC Insulation (Type A)
- Cores laid parallel in a single plane
- PVC Sheath (FRLS, Heat Resistant)

- Fine stranded flexible copper conductor for high flexibility
- Specially formulated PVC insulation for superior electrical performance
- PVC sheath – Flame Retardant, Low Smoke & Safe for indoor & outdoor use
- Resistant to water, oil, abrasion, chemicals and sunlight

- WATER RESISTANT
- FLAME RETARDANT (FRLS)
- HIGH FLEXIBILITY
- HEAT RESISTANT -40°C to +70°C
- OIL & CHEMICAL RESISTANT
- ROHS COMPLIANT
- SAFE & RELIABLE

### ELECTRICAL & TECHNICAL CHARACTERISTICS (AT 27°C)

Parameter	Value
Rated Voltage (U <sub>0</sub> /U)	1100 V
AC Test Voltage (50 Hz for 1 min.)	3.5 kV
Insulation Resistance (Min.)	100 MΩ.km
Current Carrying Capacity	As per IS 694
Min. Bending Radius (Fixed)	4 x Overall Diameter
Operating Temperature	-40°C to +70°C
Flame Retardant	As per IS 694 & IS 17048 (FRLS)
Smoke Density	As per IS 694
Water Resistance	Suitable for continuous submersion
Compliance	IS 694 & IS 9968
Life	40,000 Hours (Continuous)

\*Cable to be used with suitable starting devices & overload protection as per pump rating and application.

### CONFIGURATION

**3 CORE FLAT CABLE**  
(As per IS 694)

- ● Standard Core Colours : Red, Yellow, Blue
- Cores laid parallel in a single plane (3 Core Flat Construction)

- ### KEY FEATURES
- ✓ Flame Retardant as per IS 694 & IS 17048 (FRLS)
  - ✓ High flexibility for easy handling and installation
  - ✓ Low Smoke Emission – Safe for occupied spaces
  - ✓ Heat Resistant – Operates up to 70°C
  - ✓ High Insulation Resistance – Ensures safety & reliability
  - ✓ Water & Moisture Resistant – Suitable for continuous submersion
  - ✓ Uniform Thickness – For consistent performance
  - ✓ Highly Durable – Long service life in harsh conditions
  - ✓ RoHS Compliant – Environment friendly

- ### COMPLIANCE & STANDARDS
- 
- ✓ IS 694 : 2010 – PVC Insulated Unsheathed & Sheathed Cables (For Working Voltages up to and including 1100 V)
  - ✓ IS 9968 : 2017 – Specification for PVC Insulated Cables for Submersible Pumps
  - ✓ IS 17048 : 2018 – PVC Insulated Cables (FRLS)
  - ✓ RoHS Compliant
  - ✓ Tested for Safety & Performance



- ### IDEAL FOR TOUGH WATER CONDITIONS
- Continuous Submersion
  - Abrasion Resistant
  - UV & Sunlight Resistant
  - Oil & Chemical Resistant
  - High Dielectric Strength
  - Safe & Reliable Performance

## LDC HOUSE WIRES

AS PER IS 694 & IS 17048

Gulix Cable LDC House Wires are engineered to deliver safe, reliable & long-lasting electrical performance for modern living and working spaces. Manufactured strictly as per IS 694 (FR-FRLSH PVC Insulated) and IS 17048 (HFFR Insulated) standards for 1C, 2C, 3C & 4C cables.



### KEY FEATURES & BENEFITS

- Flame Retardant – Prevents the spread of fire
- Low Smoke & Halogen (Acid) Free – Safe during fire
- High Insulation Resistance – Ensures electrical safety
- Excellent Flexibility – Easy to install & handle
- Heat Resistant – Suitable for high temperature environments
- Durable & Long Lasting – Reliable performance over time
- Environment Friendly – Reduces toxic emissions
- Conforms to National Standards – IS 694 & IS 17048

## LDC HOUSE WIRES

AS PER IS 694 & IS 17048



### FR-FRLSH (IS 694)

Flame Retardant – Flame Retardant  
Low Smoke – Halogen (Acid) Free  
For safe use in general wiring applications.



### HFFR (IS 17048)

Halogen Free – Flame Retardant  
Low Smoke – High Safety  
Environment friendly with minimal smoke & toxic gases.

1C CABLE	2C CABLE	3C CABLE	4C CABLE
1 Core (Phase or Neutral) Available in multiple sizes & colours	2 Core (Phase + Neutral) Flexible & easy installation	3 Core (Phase + Neutral + Earth) Ideal for appliances & power circuits	3 Core (3 Phase + Neutral) Suitable for 3 Phase supply systems

Available Sizes: 0.5 sq.mm to 16 sq.mm | Voltage Grade: 1100V | Conductor: Annealed Electrolytic Grade Copper | Insulation: FR-FRLSH | HFFR

### FR-FRLSH & HFFR PROPERTIES

PROPERTY	FR-FRLSH (IS 694)	HFFR (IS 17048)
Flame Retardancy	Passes Vertical Flame Test	Passes Vertical Flame Test
Smoke Emission	Low Smoke	Very Low Smoke
Halogen Content	Zero (Halogen Free)	Zero (Halogen Free)
Acid Gas Emission	Low (Non-Corrosive)	Very Low (Non-Corrosive)
Toxicity	Low Toxicity	Very Low Toxicity
Oxygen Index	≥ 29%	≥ 30%
Temperature Range	-15°C to +70°C	-15°C to +90°C
Application	General Wiring	Critical & High Safety Areas

IS 694

CM/L No. 8700128412

IS 17048

CM/L No. 8700128413

### APPLICATIONS



### Ideal for use in:

Homes, Offices, Hospitals, Schools, Airports, Shopping Malls, Hotels, Residential Complexes, Industrial Buildings & All General Electrical Installations.

### COMPLIANT TO NATIONAL STANDARDS

- IS 694:2010 – FR-FRLSH PVC Insulated Wires
- IS 17048:2018 – HFFR Insulated Wires
- Voltage Grade: 1100V
- Tested & Certified for Safety, Quality & Performance



ELECTRICAL SAFETY	FLAME RETARDANT	LOW SMOKE & HALOGEN FREE	ENVIRONMENT FRIENDLY	HEAT RESISTANT	HIGH RELIABILITY	TRUSTED BY PROFESSIONALS

STRONGER CONNECTIONS. SMARTER NETWORKS.  
**POWERING POSSIBILITIES.**

# THANK YOU!

We appreciate your time and interest in **Gulix Cable**.  
We look forward to powering a stronger,  
safer and **connected future** with you.

## LET'S CONNECT

- ✉ sales@gulixcable.com
- ☎ +91-8347040895
- 🌐 www.gulixcable.com

*Shakti Shukla*

CTO  
Gulix Cable Pvt Ltd

### WHY CHOOSE GULIX CABLE?

- High Performance**  
Engineered for excellence
- Safe & Reliable**  
Built for safety. Delivered with trust.
- Flame Retardant**  
FRLS / FRLSH options for enhanced fire safety
- Environment Friendly**  
RoHS Compliant & Eco-conscious
- Durable & Long Lasting**  
Tested for extreme conditions
- Flexible & Easy to Install**  
Designed for hassle free installation



**SAFE & RELIABLE**  
Built for safety.  
Delivered with trust.



**HIGH PERFORMANCE**  
Engineered for maximum performance.



**FLAME RETARDANT**  
FRLS / FRLSH options for enhanced fire safety.



**ENVIRONMENT FRIENDLY**  
RoHS compliant & eco-conscious.



**BUILT TO LAST**  
Durable solutions that last for years.



Preferred by experts.  
Proven by performance.

**POWERING TODAY.  
CONNECTING TOMORROW.**

### WIRES & CABLES FOR EVERY APPLICATION

**RESIDENTIAL COMPLEXES**

**COMMERCIAL BUILDINGS**

**INDUSTRIAL PLANTS**

**HOSPITALS**

**SCHOOLS & COLLEGES**

**MALLS & HOTELS**

**AIRPORTS**

**METRO & TRANSPORT**



ISO 9001:2015  
CERTIFIED



RoHS  
COMPLIANT



100% TESTED  
QUALITY ASSURED



FLAME RETARDANT  
& LOW SMOKE



HIGH INSULATION  
& SAFETY

PROUDLY  
MADE IN INDIA

