



Eight Decades of Trust & Innovation

# RAILWAY CABLES



Transmission  
& Distribution



Renewable  
Energy



Power  
Generation



Exploration



Mobility



Defence



Manufacturing



Infrastructure



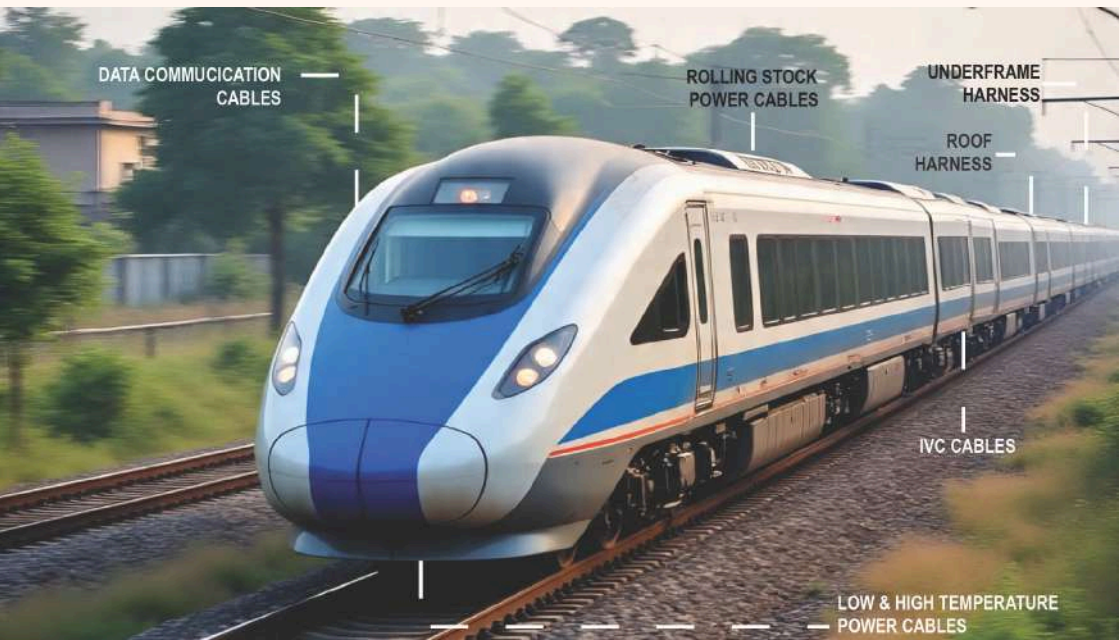
Harnessing

## ABOUT US

- Nicco Cables is a 80 year old brand based in India
- Nicco specializes in manufacturing wide range of Wires and Cables
- Nicco has an in-house R&D facility
- Nicco specializes in Compound manufacturing and has a dedicated team for Compounds
- Nicco is the first Company in India to install a 3 MeV Electron Beam Plant form USA for manufacturing irradiated cables
- The manufacturing plant covers an area of 450,000 sq.ft.
- National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited Testing laboratory at plant

## NICCO PRODUCES A WIDE RANGE OF CABLES

- Solar & Windmill Cables
- Ethernet Cables (Cat-5e, Cat-6a, Cat-7)
- LT & HT Power & Control Cables (Upto 66 kv)
- Elastomeric & Silicon Cables (Upto 15 kv) for various application
- PTFE, ETFE & FEP Cables
- Flexible Trailing Cables - H07-RNF
- Ethernet Polyurethane Cables
- Rolling Stock Cables
- Ship Building Cables
- Fire Survival Cables (For Nuclear Reactor)
- TREE WIRE / SPACER Cables - 3 layer Track Resistant (upto 35kv)
- Hybrid / Composite and Underwater Cables
- Pressure Tight Cables
- Overhead transmission Conductors (AAAC, ACSR, AAC, ACAR , AL-59)
- Medium Voltage Covered Conductors (MVCC)
- Automotive Cables
- Cable Harnessing



## RAILWAY CABLES

- NICCO Railway cables are used for electrical locos, diesel electric locos, diesel hydraulic locos, diesel rail cars, battery locomotives, Metro Rail, and electrical multiple units
- NICCO also manufacture/supply set of Harnessed cables as per specification for Indian Locomotives
- Made from Advanced polymers that are specially in-house formulated and cross-linked
- NICCO materials are able to withstand extremely high temperatures and retain dimensional stability in short circuit condition
- NICCO railway cables have excellent insulation properties and do not require thick walls. This significantly reduces space requirements and cable weight
- Halogen-free E-Beam Crosslinked NICCO materials meet the highest requirements of all Standards and hazard levels
- First private sector to install a 3 MeV Accelerator from Radiation Dynamics Inc, USA for indigenisation of Electron Beam Irradiated Cables for Rolling Stock application

# RAILWAY CABLE DIFFERENT FUNCTIONS

- High voltage and medium voltage power feeder
- High, medium and low voltage distribution networks as well as earthing/grounding connections
- Signaling and control Cables
- Communication cables with twisted pairs
- Coaxial or optical elements
- LAN cables
- Locomotive and rolling stock cables
- Coach wiring
- UIC Cables
- Cables Metro Railway
- Composite Jumper Cable for Railway Coach
- Locomotive Harness Cables with Connectors
- Cables For Diesel Locomotives

## RAILWAY CABLES

- **High Withstand Temperature** – Enhanced thermal properties, capable of operating at temperatures up to 230°C
- **High Current Rating** – Can sustain an operating temperature of up to 230°C
- **Special Polymer** – Designed to perform across a wide temperature range from -65°C to +230°C
- **No Risk of Deformation** – Maintains integrity even at short circuit temperatures

Excellent Electrical Arc Resistance – Provides superior resistance to electrical arcing

- **Rugged Mechanical Properties** – Exceptional resistance to abrasion, scrapes, and cuts
- **Outstanding Fluid Resistance** – Resistant to a wide range of reactive chemicals, oils, solvents, and more
- **UV and Moisture Resistant** – Impermeable to moisture and resistant to ultraviolet (UV) rays

- **High-Tech Polymer** – Fire-resistant, low smoke emission, low toxicity, and zero halogen release

## **RAILWAY SPECIFICATIONS for EBXL CABLES**

### Railway Cables as per EN Specifications:

- **EN 50264-1**
  - Railway Applications- Railway Rolling Stock Power & Control Cables having Special Fire Performance – (General Requirements)
- **EN 50264-2-1**
  - Railway Application- Cables with Cross Linked Elastomeric Insulation Single Core Cables
- **EN 50264-2-2**
  - Railway Application- Cables with Cross Linked Elastomeric Insulation Multi Core Cables
- **EN 50264-3-1**
  - Railway Application- Cables with Cross Linked Elastomeric Insulation with Reduced Dimension – Single Core Cables
- **EN 50264-3-2**
  - Railway Application- Cables with Cross Linked Elastomeric Insulation with Reduced Dimension – Multi Core Cables
- **EN 50306-1**
  - Railway Applications- Railway Rolling Stock Cables having Special Fire Performance - Thin Walled. (General Requirements)
- **EN 50306-2**
  - Railway Applications- Railway Rolling Stock Cables having Special Fire Performance - Thin Walled. (Single Core Cables)
- **EN 50306-3**
  - Railway Applications- Railway Rolling Stock Cables having Special Fire Performance - Thin Walled. (Single Core & Multi Core Cables Screened & Thin Walled Sheathed)

- **EN 50306-4** • Railway Applications- Railway Rolling Stock Cables having Special Fire Performance - Thin Walled. (Multi Core & Multi Pair Screened Or Not Screened Sheathed Cables)
- **BS EN 50382-1** • Railway rolling stock high temperature power cables having special fire performance (General Requirements)
- **BS EN 50382-2** • Railway rolling stock high temperature power cables having special fire performance (Single core, silicone rubber insulated cables for 120 °C and 150°C)
- **DIESEL LOCOMOTIVES** • Cables for DIESEL Locomotives from EDPS-179, EDPS-304 with fire Hazard characteristics as per VG 95218-20 Type E

## **RAILWAY SPECIFICATIONS for EBXL CABLES**

- **ELRS/SPEC/ELC/0019, REV-4** • Thin Walled Flexible Elastomeric Cables with Copper Conductor for Working Voltage
  - i) Up to 750 Volts &
  - ii) Above 750 Volts Upto 1.8/3.0 KV
- **CLW/ES/3/0458 ALT C** • Set of Single Core Cables for WAG-9/WAP-5 Locomotives
- **CLW/ES/3/0459 ALT C** • Set of Multi Core Cables for WAG-9/WAP-5 Locomotives
- **EDTS-132-REV C** • Specification for Thin Walled Electron-Beam Irradiated Flexible Elastomeric Cables with Copper Conductor for Coaching Stock Applications (Working Voltage upto 3kV)

## **EXISTING CERTIFICATIONS**

ISO 9001 / 14001 / 45001

Directorate of Quality Assurance (Navy) [DQAN] Registration Certificate

Defense Research and Development Laboratory (DRDL) Registration Certificate

Integrated Headquarters of Ministry of Defence (IHQ/DEE/MOD)

Research Designs and Standards Organization (RDSO)

American Bureau of Shipping (ABS)

Indian Register of Shipping (IRS)

Underwriters Laboratories (UL)

Central Power Research Institute (CPRI)

Bureau of Indian Standards (BIS)

International Railway Industry Standard (IRIS)

National Accreditation Board for Testing and Calibration Laboratories (NABL)

Det Norske Veritas (DNV)



## **Nicco Cables Pvt. Ltd.**

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### **REGIONAL OFFICES**

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