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Finolex

XCEEDS XPECTATIONS

BUILT TOUGH TO PROTECT

ENGINEERED FOR SAFETY, DURABILITY & PERFORMANCE

No Stress. Finolex

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Advanced Technology, Superior Safety: The Future of Wiring Solutions

Key Features

- **Exceptional Longevity**

  These wires are designed to operate reliably for more than 50 years. The Electron Beam (E-Beam) Cross-Linking process enhances thermal resistance and insulation strength.

- **High Operating Temperature**

  Withstands temperatures up to 125°C, outperforming conventional wires that are limited to 90°C.

- **Superior Current Carrying Capacity**

  Advanced E-Beam Cross-Linking technology provides a 75% higher current carrying capacity compared to standard wires. Reduces energy loss, minimizes overheating, and optimizes performance for high-demand applications.

- **Halogen-Free Flame Retardant (HFFR)**

  Halogen-Free: Emits no halogen gases during fire accidents, ensuring respiratory safety after evacuation.

  Low Smoke: Produces negligible black smoke during fire hazards, offering better visibility for evacuation.

  No Toxicity: Emits no toxic gases during a fire, ensuring safety in enclosed and populated areas.

- **RoHS & REACH Compliant**

  Meets stringent RoHS (Restriction of Hazardous Substances) and REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals) European safety standards.

  Free from hazardous chemicals, substances, and heavy metals, making the wires environmentally friendly and safe for human use.

- **Anti-Termite & Anti-Rodent Protection**

  Specially formulated rodent and termite-repellent insulation compounds ensure resistance against pests. Increases the longevity and reliability of the wires in environments prone to such infestations.

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Halogen-free flame retardant insulation

The wires are insulated with a EBXL halogen-free flame retardant (HFFR) compound, providing high dielectric strength and enhanced protection. Thanks to the electron beam cross-linking process, the insulation resists melting and dripping, offering improved insulation resistance and higher current-carrying capacity. This insulation ensures that your home remains safe from electrical shocks, short circuits, and fires.

Fire safety features

- Critical oxygen index: more than 31%
- High-temperature index: more than 250°c
- Self-extinguishing properties

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Why E-beam wires are the best!

The E-Beam cross-linking process is a cutting-edge, eco-friendly technology that causes zero environmental pollution, making FinoUltra wires a sustainable and safe choice. This advanced process ensures that the wires meet modern environmental standards without compromising performance or quality.

These wires are highly resistant to extreme temperature, UV radiation, ozone resistant and chemical degradation. They also handle higher overload conditions than traditional non-beam cured cables.

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Finolex E-Beam cured wires

These wires are designed to emit negligible smoke during fire accidents, significantly reducing harmful black smoke released. They are also halogen-free and comply with RoHS and REACH European directives.

To further enhance longevity, these wires feature a specially formulated insulation compound that resists damage from termites and rodents. The E-Beam process strengthens the wires' tensile strength, abrasion resistance, and thermal resistance to ensure an operational life of over 50 years.

With E-Beam cross-linking these wires offer a 75% higher current carrying capacity than non-beam cured alternatives, leading to better energy efficiency. FinoUltra wires meet the IS 17048 standards, allowing continuous operation at temperatures above 90°C.

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Application across modern industries

FinoUltra HFFR Wires are ideal for

- Metro Stations
- Airports
- Shopping Malls
- Hospitals
- Commercial Complexes
- High-Rise Buildings
- High Human activity areas
- Sport stadiums
- Fire Alarms and Emergency Lighting Systems
- Residential and Industrial Installations

Halogen Free Flame Retardant (HFFR) Industrial Cables for Working Voltages up to and including 1100 Volts as per IS 17048:2018

Nominal Cross Sectional Area of Copper Conductor	Nominal Thickness of Insulation	Approx. Diameter of Wire	Maximum Conductor Resistance	Current Carrying Capacity	
				In Conduit trunking	Un Enclosed - Clipped directly to surface or on Cable Tray
Sq. mm	Mm	mm	Ω/km at 20°C	Amp	Amp
0.75	0.60	2.30	26.00	13	14
1.00	0.60	2.50	19.50	22	24
1.50	0.60	2.70	13.30	24	32
2.50	0.70	3.30	7.98	32	43
4.00	0.80	4.00	4.95	42	52
6.00	0.80	4.50	3.30	54	68

E-beam HFFR (Halogen Free Flame Retardant) wires offer numerous advantages and are particularly suitable for applications requiring high safety and performance standards.

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Key Features of E-beam HFFR Wires:

Key features	Details
Enhanced Properties:	
Mechanical Strength	Improved resistance to wear and impact, enhancing durability.
Thermal Resistance	Withstands higher temperatures, up to 125°C, compared to conventional cables (90°C).
Chemical Resistance	Resistant to oils, solvents, water, and chemicals, ensuring longevity in harsh environments.
Safety features:	
Zero Halogen	Emits no toxic halogens when burned, ideal for enclosed or populated areas.
Low Smoke	Produces significantly less smoke during fires, aiding visibility and reducing inhalation risks.
Flame Retardant	Resists ignition and prevents fire spread
Electrical Performance:	
Higher Current Carrying Capacity	E-beam wires handle more current without overheating, crucial for high-demand applications.
Reduced Diameter	Thinner insulation with high performance allows compact and flexible installations.
Durability:	
Longer Lifespan	Cross-linking doubles the lifespan, exceeding 50 years compared to conventional cables.
Environmental Resistance	Excellent resistance to UV radiation, ozone, and extreme weather, suitable for outdoor use.

Available sizes and colors

FinoUltra wires are available in 0.75, 1.0, 1.5, 2.5, 4.0 & 6.0 sq. mm.
And in red, yellow, blue, black and green colours and are supplied in a standard packing lengths of 90 meter coils and also available in project coils of 180 meters.

About Finolex Cables

Finolex Cables Ltd. is now recognized as India's premier manufacturer in the electrical and telecommunication cable sector. The company began its operations by producing PVC-insulated electrical cables specifically designed for the automotive industry. Over the years, Finolex has remained dedicated to broadening its product range. This expansion includes PVC Insulated Industrial Cables, HF FR LSH (Halogen Free Flame Retardant) Single Core Flexible Cables, FR-LSH PVC Insulated Industrial Cables, and a diverse range of PVC Insulated Single Core and Multicore Flexible Industrial Cables, which are compliant with rodent-repellent and vermin-proof standards. The portfolio also features PVC Insulated Winding Wires and 3 Core Flat Cables.

In addition to these, the company offers XLPE 3 Core Flat Cables, Power and Control Cables, High Voltage Power Cables (up to 33 kV), and Polyethylene Insulated Jelly-Filled Telephone Cables. Finolex's product lineup further includes Auto and Battery Cables, Co-axial and CATV Cables, LAN Cables, Switchboard Cables, Fibre Optic Cables, and Solar Cables, among other cable products.

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Finolex Cables Limited
AN IS/ISO 9001 CERTIFIED COMPANY

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