

SEALING AND PROTECTION IN WIRE HARNESS APPLICATIONS

In demanding electrical environments, wire harnesses must deliver consistent performance, protection, and durability. TE Connectivity's heat shrink tubing solutions are engineered to meet these challenges by providing robust insulation, environmental sealing, and mechanical strain relief. Designed for a wide range of industries—including automotive, aerospace, industrial, and telecommunications—these products help streamline harness assembly while safeguarding against abrasion, moisture, and chemical exposure. With a broad portfolio tailored to diverse specifications, TE's heat shrink tubing plays a critical role in enhancing the longevity and reliability of modern wire harness systems.

TRENDS IN HEAT SHRINK TUBING



Electrification & High Voltage

Growing demand in EVs and renewable energy systems for high-voltage insulation and protection



Sustainability

Shift toward sustainable materials



Advanced Materials

Innovations in cross-linked polymers for higher temperature and chemical resistance



Smart Manufacturing

Automation-ready tubing designs for faster, more consistent installation



Connectivity & Data

Protection for data and sensor cables in connected systems and smart infrastructure

BENEFITS OF HEAT SHRINK TUBING IN WIRE HARNESS APPLICATIONS



Mechanical Protection

- Shields wires from abrasion, cuts, and impact
- Adds strain relief at connection points and terminations



Electrical Insulation

- Prevents short circuits and electrical leakage
- Maintains dielectric strength even in harsh environments



Thermal Resistance

- Operates effectively across a wide temperature range
- Suitable for high-heat environments like engine compartments



Flame Retardancy

- Many types meet flame-retardant standards for safety-critical applications



Environmental Sealing

- Protects against moisture, dust, chemicals, and corrosion
- Adhesive-lined variants provide a watertight seal



Easy Installation

- Simple to apply with a heat gun or oven
- Conforms tightly to irregular shapes and connectors



Long-Term Reliability

- Enhances the durability and service life of wire harnesses
- Resistant to UV, chemicals, and mechanical wear



Space and Weight Efficiency

- Reduces the overall diameter of wire bundles
- Lightweight alternative to bulky insulation methods



Improved Aesthetics and Organization

- Neatly bundles wires for a clean, professional appearance
- Available in multiple colors for easy circuit identification

SEALING AND PROTECTION IN WIRE HARNESS APPLICATIONS

In demanding electrical environments, wire harnesses must deliver consistent performance, protection, and durability. TE Connectivity's heat shrink tubing solutions are engineered to meet these challenges by providing robust insulation, environmental sealing, and mechanical strain relief. Designed for a wide range of industries—including automotive, aerospace, industrial, and telecommunications—these products help streamline harness assembly while safeguarding against abrasion, moisture, and chemical exposure. With a broad portfolio tailored to diverse specifications, TE's heat shrink tubing plays a critical role in enhancing the longevity and reliability of modern wire harness systems.

TRENDS IN HEAT SHRINK TUBING



Electrification & High Voltage

Growing demand in EVs and renewable energy systems for high-voltage insulation and protection



Sustainability

Shift toward sustainable materials



Advanced Materials

Innovations in cross-linked polymers for higher temperature and chemical resistance



Smart Manufacturing

Automation-ready tubing designs for faster, more consistent installation



Connectivity & Data

Protection for data and sensor cables in connected systems and smart infrastructure

BENEFITS OF HEAT SHRINK TUBING IN WIRE HARNESS APPLICATIONS



Mechanical Protection

- Shields wires from abrasion, cuts, and impact
- Adds strain relief at connection points and



Electrical Insulation

- Prevents short circuits and electrical leakage
- Maintains dielectric strength even in harsh environments



Thermal Resistance

- Operates effectively across a