

Industrial Pvc Heat Shrink Tubing For Battery Insulation And Electronic Components

Item Number: FZ54



Introduction

Discover high performance industrial PVC heat shrink tubing engineered for 18650 battery insulation and electronic encapsulation. Featuring superior dielectric strength, precise 45 to 48 percent transverse shrinkage, and robust chemical resistance for demanding manufacturing applications.

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Application	Description	Key Benefit
18650 Battery Cell Resleeving & Insulation	Insulating and relabeling bare 18650 cylindrical lithium-ion, sodium-ion, and nickel-metal hydride cells in research labs and battery pack manufacturing plants.	Prevents short circuits from metallic contact while maintaining standard cell outer diameter limits.
Battery Pack Module Assembly	Outer protective wrapping of clustered multi-cell battery packs used in power tools, light electric vehicles (e-bikes, scooters), and robotics.	Provides cohesive mechanical containment, structural bundling, and uniform insulation against inter-cell abrasion.
Electrolytic Capacitor Encapsulation	External insulating jacket for industrial electrolytic capacitors, inductors, and specialized pulse-power passive components.	Ensures high dielectric isolation, environmental sealing against humidity, and neat aesthetic appearance.
Cable Harness & Terminal Protection	Covering crimped wire lugs, busbar joints, inline splices, and wiring bundle break-outs in automotive and industrial control panels.	Delivers strain relief, abrasion resistance, and robust electrical isolation across low-to-medium voltage circuits.
Laboratory Battery R&D	Prototyping and custom battery enclosure construction in academic research facilities and commercial battery development labs.	Enables rapid, customizable manual or semi-automated cell wrapping with consistent, reproducible dielectric properties.
Small Hardware & Tool Coating	Protective sleeving for hand tool handles, metal rods, sensor probes, and test bench fixtures requiring basic electrical and corrosion insulation.	Enhances grip comfort, prevents metal-to-metal shorting, and protects underlying substrates from oxidation and surface wear.

Parameter	Specification (Item No: FZ54)
Product Item Number	FZ54
Base Material	Polyvinyl Chloride (PVC)
Color	Blue
Flat Width	42 mm (+0.8 / -0 mm)
Single Wall Thickness	0.08 ± 0.01 mm
Continuous Operating Temperature Range	-5°C to 85°C
Maximum Temperature Resistance	85°C
Tensile Strength	≥500 kg/cm ² (approx. ≥49 MPa)
Volume Resistivity	≥10 ¹⁴ Ω-cm
Transverse Shrinkage Ratio (TD)	45% - 48%
Longitudinal Shrinkage Ratio (MD)	13 ± 2%
Target Application Form Factor	Standard 18650 Cylindrical Cells & Matching Diameter Components

Parameter	Specification (Item No: FZ54)
Shrink Method Compatibility	Industrial Hot Air Guns, Heat Tunnel Ovens, Conveyorized Shrink Systems