High Purity Aluminum Battery Tabs 5Mm Width For Polymer Lithium Pouch Cell Current Collectors

Item Number: FZ36

Introduction

Source high purity 99.99 percent aluminum battery tabs engineered with precision 5mm width for pouch cell assembly. Designed for optimal conductivity up to 5A current capacity, ensuring reliable ultrasonic welding and superior electrochemical stability in advanced polymer battery research.

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Application	Description	Key Benefit
Lithium Polymer Pouch Cell Fabrication	Serves as the primary positive terminal lead welded to aluminum cathode collector stacks in custom pouch cell builds.	Minimizes interfacial impedance while ensuring a hermetic seal against electrolyte migration.
Solid-State Battery Research	Integrated into prototype solid-state and gel-polymer electrochemical test cells requiring high oxidation resistance.	Resists chemical breakdown and side reactions at higher operating cell voltages up to 4.5V+.
Wearable & IoT Energy Storage R&D	Utilized in ultra-thin, low-profile flexible lithium polymer battery prototypes for consumer electronics.	Compact 5 mm profile enables compact packaging without sacrificing current-carrying efficiency.
High-Rate Pulse Discharge Testing	Applied in pulse power evaluation platforms for compact medical device batteries and micro-drone power packs.	Handles continuous loads up to 5A with stable thermal management and low resistive losses.
Battery Pilot Line Process Verification	Used in standardizing ultrasonic tab-welding and pouch-sealing parameters before scaling to full industrial production.	Highly consistent dimensional tolerances ensure repeatable parameter optimization across batch runs.
Academic Materials Science Testing	Acts as standard current-collecting leads for novel cathode active material screening and half-cell evaluations.	High chemical purity prevents spurious metallic interference in sensitive electrochemical data.

Specification Parameter	Value / Details
Product Item Identifier	FZ36
Base Material	High-Purity Aluminum (Al ≥ 99.99%)
Tab Polarity / Terminal Assignment	Positive Terminal (Cathode Connection)
Overall Length	48.0 mm
Strip Width	5.0 mm
Foil Thickness	0.10 mm (100 µm)
Maximum Continuous Current Load	5 A
Nominal Mass per Piece	60 mg
Standard Packaging Quantity	20 pieces / pack
Compatible Welding Technologies	Ultrasonic Metal Welding, Resistance Spot Welding, Laser Micro-Welding
Cell Format Compatibility	Pouch Cells, Polymer Lithium-Ion, Solid-State Laminates, Sodium-Ion Pouch Formats