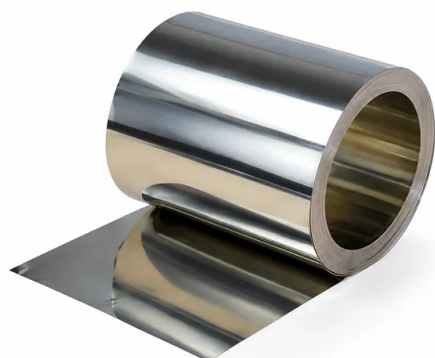


Lithium Battery Current Collector Metal Foil Nickel Zinc Titanium Stainless Steel Foils

Item Number: FZ22



Introduction

Premium lithium battery current collector metal foils including high purity nickel zinc titanium and 316 stainless steel engineered for electrochemical stability high tensile strength and superior electrical conductivity in advanced battery research and energy storage.

[Learn More](#)

Application	Description	Key Benefit
Solid-State & Lithium Metal Batteries	High-purity nickel and titanium foils act as stable current collector backings and non-reactive planar substrates for lithium metal deposition and solid electrolyte interfaces.	Exceptional potential stability prevents unwanted interfacial alloy formation and suppresses dendrite-induced structural failure.
Aqueous Zinc-Ion Batteries (ZIBs)	Ultra-pure zinc foils function directly as both the active anode active material reservoir and primary conductive current collector in mild aqueous electrolytes.	Uniform crystallographic surface promotes homogenous zinc stripping and electrodeposition, suppressing rapid dendrite growth.
High-Voltage Supercapacitors	Corrosion-resistant titanium and 316 stainless steel foils support high-surface-area activated carbon and pseudocapacitive metal oxide electrode pastes.	Wide electrochemical operating window and chemical passivation resist electrolyte breakdown at high cell operating voltages.
Alkaline Battery & Fuel Cell Stacks	Nickel and stainless steel substrates provide current collection and structural separator bipolar plates in concentrated alkaline and KOH-based systems.	Complete immunity to anodic dissolution and caustic stress corrosion cracking during continuous high-current discharge.
Next-Generation Sodium & Metal-Air Cells	Tailored metal foils provide specialized collector matrices resistant to aggressive sodium ion intercalation stress and open atmospheric oxygen intake.	Robust mechanical durability maintains electrode integrity under severe volumetric expansion and continuous atmospheric breathing.
Academic Materials Characterization	Thin foil substrates serve as standardized working electrode backings for cyclic voltammetry, electrochemical impedance spectroscopy (EIS), and in-situ XRD/TEM analysis.	Highly reproducible baseline background profiles eliminate spurious current peaks and deliver precise kinetic measurement data.

Product Series Code	Material Base	Chemical Purity	Standard Thickness	Thickness Customization Range	Standard Width	Width Customization Range	Standard Length / MOQ	Key Physical & Thermal Properties
FZ22-Ni	Nickel (Ni)	≥99.9%	0.01 mm	Standard / On-demand	100 mm	Available on request	1 m / Roll	Resistivity: 6.97 μΩ-cm (20°C) Density: 8.9 g/cm³ (25°C) Melting Point: 1453°C Boiling Point: 2732°C
FZ22-ZF	Zinc (Zn)	≥99.9%	0.01 mm 0.02 mm 0.10 mm	Fully Customizable	100 mm	Fully Customizable	1 m / Roll	Appearance: Uniform Silver-Grey Ductile, uniform surface topography
FZ22-SS-316	316 Stainless Steel	Standard 316 Alloy Spec	0.01 mm	0.01 mm - 2.0 mm	30 mm	3.5 mm - 1550 mm	5 m / Roll	Exceptional acid/halide resistance High mechanical yield strength

Product Series Code	Material Base	Chemical Purity	Standard Thickness	Thickness Customization Range	Standard Width	Width Customization Range	Standard Length / MOQ	Key Physical & Thermal Properties
FZ22-Ti	Titanium (Ti)	High-Purity Commercial Ti	0.01 mm	0.008 mm – 2.0 mm	100 mm	100 mm – 200 mm	1 m / Roll	Wide anodic stability window Superior passivation against electrolyte corrosion