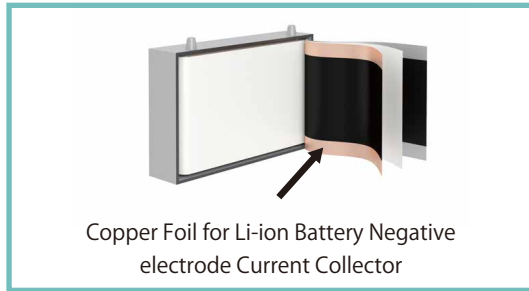


High Strength Rolled Copper Foil for Li-ion Battery

Application Examples

Rolled copper foil is used in automotive batteries and mobile devices as a negative electrode current collector.



Merits for Customers

High strength

• Suitable for batteries using Si-based active materials with large volume changes.

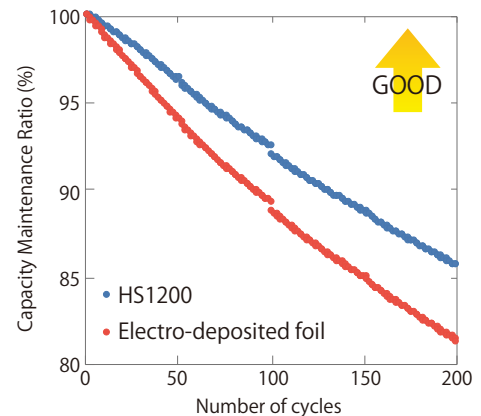
Thin foil

(Actual thickness 6 μ m)

• Thin foils are possible due to its high strength, and more current collectors can be stacked compared with batteries of the same volume, contributing to improved battery energy density.

Negative Electrode Current-Collector-Foil-Type LiB Cycle Test

Battery configuration		Positive electrode 2 layers Negative electrode 3 layers (Laminated type)
Test temperature		25°C
Cycle condition		Charge 1C, discharge 1C
Positive electrode	Current collector foil	Al Foil
	Active material	NCM111
Negative electrode	Current collector foil	HS1200 or Electro-deposited foil
	Active material	Graphite-10wt.%SiO



Features of High-Strength Copper Foil

- HS1200 and HS1200 V2 are high-strength copper alloy foil that have excellent heat resistance in terms of softening, compared to conventional tough pitch copper.
- We are developing new copper alloy foil with even good heat resistance.
- When slitting, the maximum width is 670mm and the maximum length is 8,000m.

Copper Foil	Thickness (μ m)	Chemical Composition (wt.%)	Tensile Strength (MPa)
HS1200-V2 NEW	8~	Cu-0.12Sn	630
HS1200	6~	Cu-0.12Sn	550
Tough Pitch Copper	6~	Cu > 99.9	450
Electro-deposited foil	-	Cu > 99.9	350
New-Foil for LIB ※Under Development	8~	Cu-0.1Zr	620

All values are representative, not guaranteed.

Softening Curve (Annealing Time 0.5H)

