

How to choose the thickness of nickel sheet for battery pack

How to choose a nickel strip for a lithium battery?

The width and material of the nickel strip should be selected according to the current of the lithium battery pack. In terms of material, there are two commonly used nickel strips: pure nickel strips and nickel plated steel. What is the difference between their performance and actual use?

How thick should nickel strips be?

I'm trying to minimize the thickness of my nickel strips, by evaluating how wide I can make my strips. Typical cheap spot welders have difficulty spot welding strips thicker than 0.15 mm. The largest cross sectional area on this chart is 12 mm wide and 0.15 mm thick, with optimal current carrying capacity of 17 A (from that table).

How many amps per square mm of nickel?

From what I've read and been told, 6.5 amps per square mm of Nickel is about the limit of acceptable for battery strips between cells. ideal would be less. As you can see, that works out to just about 1 amp per mm of width with .15 strips. Here's a couple of calculators. Buy the ticket, take the ride. You must log in or register to reply here.

What if each battery has a 15A nickel strip?

If each battery cell in parallel had its own 15A nickel strip connection to the next battery in series, you'd have 5 independent 12v batteries that are rated for 15A and are properly sized, adding a strip between them allows them to compensate for minor differences in voltage and capacity while also naturally balancing the 5 12v batteries together.

Should I use a nickel battery pack?

So, these are only recommended for low-current operations. When you are building a battery-powered low-voltage system, it's critical to build the battery with the right size nickel. It's important to not overlook the wiring outside of the battery pack, as it's just as important as the battery's internal connections.

How much current can a nickel strip withstand?

For nickel-plated steel, its calculation formula is usually calculated according to $7A/mm^2$; that is to say, the maximum continuous overcurrent of nickel-plated steel with a thickness of $0.15mm \times 7mm$ is $7 \times 0.15 \times 7 = 7.35A$. It can be seen that the current that a pure nickel strip can withstand is about 1.5 times that of nickel plated steel.

The nickel strip on the battery packs I have is approx 0.3mm thick and is nickel-coated steel strip. It is welded 4 times per cell per side (2 weld operations, 4 indents from the ...

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I wonder if the thickness of nickel strips matters. Let's assume you have a battery pack in a Reention SF2 case, charging a 36V 350W Bafang G070.350.D hub motor. The battery pack provides 36V 24.5Ah with LG 18650 3500mah cells arranged at 10S 7P. With pure nickel sheet connections, insulated cell groups & insulated BMS. Questions:

The nickel sheet is used to connected each battery when making the battery pack. ... Nickel sheet for lithium battery pack. ... Also, notice that the most common use nickel sheet thickness is 0 ...

Cylindrical battery nickel plate / strip / sheet / tape / belt, 0.15*27mm nickel tape, 18650 li-ion battery Ni strip, 99.7% Pure nickel strip nickel plate 0.12/015mm(thickness)*27mm(width) Application: The connecting piece ...

1. Nickel Sheet Ideal for spot welding of lithium battery pack. 2. Nickel Sheet is mainly used as battery connection sheet, lead-out sheet. 3. Suitable for Ni-MH battery, lithium battery, power tools, battery pack, polymer battery, power battery as well as instrument, telecommunication, electrical vacuum and other industries. 4.

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More specifically, how do I choose the correct nickel strip thickness to handle the current, and how much current is passing through the connections. Say I had a 3s5P battery for example sakes.

Providing i use a kweld and lipo battery. A) simply use a 0.20 mm thick nickel sheel 70cm wich allows 64 amps ... Is it findable 30mm wide 0.2mm thick sheet of pure nickel?) B) add a second layer of 0.15mm(4 between each parallel groupe on top of a prior 0.15mm nickel complete sheet welded on the cells so that would allow 50 amps plus 20 =70 ...

When putting together an ebike battery pack, you want to make sure you're using pure nickel strips and not nickel coated steel trips. ... about 3? wide. Could be a sheet by square foot that I ...

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I'm building a 5S3P Li-Ion pack from 21700 cells. I have found various charts and tables depicting nickel stirp dimensions and their acceptable currents. But I'm not sure ...

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