

Li-Polymer Battery Production Process Profile

1. Mixing

- Mix solvent and bond separately with positive and negative active materials. Make into positive and negative pasty materials after stirring at high speed till uniformity.



2. Coating

- Coat metal foils uniformly with the made-up pasty materials on two sides. Then make sheets dry.



3. Cutting

- Cut a roll of positive and negative sheet into smaller sheets according to battery specification and punching requests.



4. Pressing

- Press the above positive and negative sheets till they become flat.



5. Punching

- Punch sheets into electrodes according to battery specification.



6. Re-pressing

- Re-press electrodes till they become flat and stout.



7. Weighting

- Strictly choose the same weight cathodes and anodes to match according to battery design of capacity and layers.



8. Stacking

- Separate the cathodes and anodes completely by stacking separator into "s" according to battery specification and capacity.



9. Short Test

● A cell is formed after stacking. Test its insulation performance.



10. Welding tab

● Weld Al & Ni tabs to lead out anode & cathode terminals.



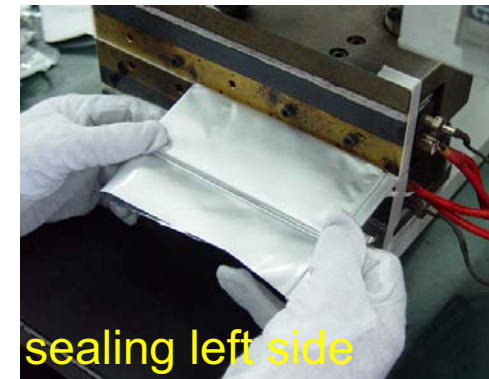
11.Short test

- Test a cell's insulation performance after tabs is welded, trimmed and pasted adhesive tape.



12.Sealing

- Seal the mouth and left side after putting the naked cell into punched Al compound packing film.



13. Short test

- Test a cell's insulation performance after it is sealed.



14. vacuum dry

- Dry the battery waiting for filling with vacuum to drain out wet gas completely in order to make sure the battery's quality.



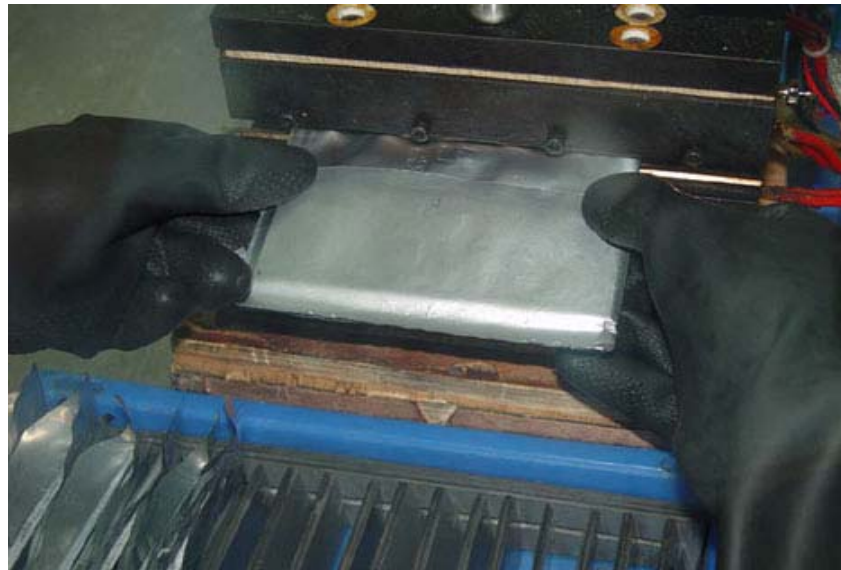
15. Filling

- Fill electrolyte into battery by filling mouth, which should be finished in a dry glove box. Relative humidity is controlled below 1%RH.



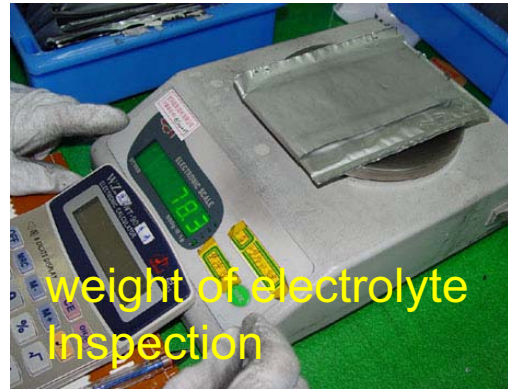
16. Sealing

- Seal the filling mouth after filling, which should be finished in a dry glove box.



17. Inspection

- Inspect battery impedance and the weight of electrolyte to see if they meet the design requests.



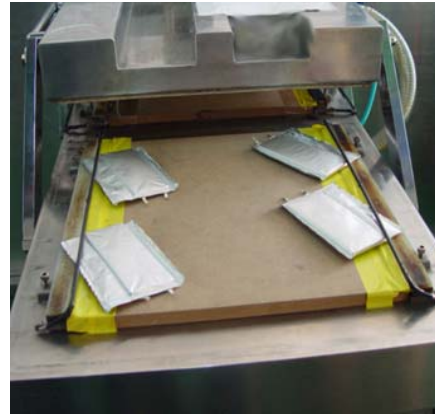
18. Formation

- Charge and discharge the fresh battery for one or several times, which is watched and recorded its performance by a computer at all times.



19. vacuuming

- The battery will produce gas after charging. Abstract gas from the battery till vacuum.



20. Sealing

- Seal right side of the battery to make sure its airtight performance.



21. Folding

- Cut the redundant Al compound packing film of left & right sides and fold automatically at the same time with an automatic folding machine.



22. Capacity sorting

- Sort batteries according to their capacity with high-precision sorting equipments, which is watched and recorded their performances by computers at all times.



one corner of sorting workshop



23.Aging

- Store the batteries in batches in warehouse after inspecting their impedance, voltage, capacity and size. The room temperature is 10~45°C and the humidity is $65 \pm 20\%$. The aging time is 30 days. The batteries is re-inspected regularly every 8 days during aging.





24. Assembly

- Assemble according to customers requests after aging. (The assembly styles can be different to meet the customer's requests). The operator must inspect every batch battery's voltage, impedance and so on before assembly.



one corner of assembly workshop



voltage inspection



impedance inspection





25. Outgoing inspection

- Inspect the battery performances according to GB/T18287-2000. The battery can't leave the factory until OQC consider it qualified after sampling inspection according to GB/T2828.1



impedance inspection



voltage inspection



constant temperature & humidity test



shock test



capacity & charging/discharging inspection



constant temperature cycle test

26.Packing

- Package consists of an inner plastic tray and an outer carton. Enlace cartons to fasten with strapping strips on stack board. Finally coat clear plastic film on these cartons to moisture-proof. This is to make sure safe transportation and to meet the regulations of GB191-1990 Packaging-Pictorial Marking for Handling of Goods.



**Thank you for
watching!**