

### **SolarInnovate Energy Solutions**

# Lithium battery production and processing in Lithuania





#### **Overview**

Who manufactures lead-acid batteries in Lithuania?

Today, BATTEC is the only manufacturer of industrial lead-acid batteries in Lithuania and one of the first to produce lithium batteries and energy storage systems. BATTEC leverages extensive experience and ongoing research to produce cutting-edge lead-acid batteries.

What are the production steps in lithium-ion battery cell manufacturing?

Production steps in lithium-ion battery cell manufacturing summarizing electrode manufacturing, cell assembly and cell finishing (formation) based on prismatic cell format. Electrode manufacturing starts with the reception of the materials in a dry room (environment with controlled humidity, temperature, and pressure).

How are lithium ion batteries made?

State-of-the-Art Manufacturing Conventional processing of a lithium-ion battery cell consists of three steps: (1) electrode manufacturing, (2) cell assembly, and (3) cell finishing (formation) [8, 10].

What is a lithium battery?

Lithium batteries designed as VRLA battery replacements, primarily serving reserve and hybrid power applications. These batteries adhere to standard lead-acid battery dimensions for seamless integration. Customized lithium battery solutions tailored to diverse applications such as portable equipment, emergency power supply, and mobile devices.

What are the benefits of lithium ion battery manufacturing?

The benefit of the process is that typical lithium-ion battery manufacturing speed (target: 80 m/min) can be achieved, and the amount of lithium deposited can be well controlled. Additionally, as the lithium powder is stabilized via a slurry, its reactivity is reduced.



How is the quality of the production of a lithium-ion battery cell ensured?

The production parameter settings are adjusted until the specification values are restored. The products produced during this time are sorted according to the severity of the error. In summary, the quality of the production of a lithiumion battery cell is ensured by monitoring numerous parameters along the process chain.



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