



# Hpb solid state battery Czechia

Is HPB solid state electrolyte safe?

By using the HPB solid state electrolyte developed by us, the performance of our battery will remain almost constant over its lifetime. No matter how heavy the battery is used. Our battery technology is safe because our HPB solid state electrolyte is non-flammable and the battery is non-explosive.

What is HPB solid-state electrolyte?

Through the use of our patented HPB solid-state electrolyte, internal resistance remains virtually constant throughout the service life. No matter how much the battery is used. The fields of application? for our HPB solid-state battery are diverse and concern the generation, distribution and consumption of electricity.

Are HPB batteries safe?

Our battery technology is safe because our HPB solid state electrolyte is non-flammable and the battery is non-explosive. No critical raw materials are needed for production. This also improves the environmental balance by more than half compared to conventional lithium-ion batteries.

Why should you choose HPB solid-state battery?

As a new basic technology, our HPB solid-state battery makes an important contribution to this. The combination of its properties is a "game changer" and a success factor for the success of the energy transition. The characteristics of our HPB solid-state electrolyte have already been confirmed by independent research institutes.

What makes HPB a good battery?

For the automotive industry, which develops its own high-performance rechargeable batteries, HPB provides its safe, robust and outstandingly conductive HPB solid-state electrolyte. In this way, the HPB solid-state electrolyte ensures that sufficient power is available even at extreme temperatures.

Why should you choose HPB solid-state batteries in winter?

Where other batteries without external battery heating give up, the HPB Solid-State Battery is still in its comfort zone: Even at -20 °C, the extractable capacity is more than 90% - tested at a robust discharge rate (1C). This is a real game changer for the use of batteries in winter. Higher battery standards.

While conventional lithium-ion batteries have to be replaced after about 1,250 charging cycles - with hourly charging and discharging - the HPB solid-state battery currently has at least 12,500 charging cycles with a comparable load, said HPB.

HPB | High Performance Battery Holding AG | 1,582 followers on LinkedIn. The HPB Solid-State Battery. Safer. Longer lasting. Greener. | We provide a new basic ...



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Den Bonn-baserede virksomhed High Performance Battery (HPB) h&#230;vder at have opn&#229;et et kvantespring i batteriteknologi. ... Mens konventionelle lithium-ion-batterier skal udskiftes efter omkring 1.250 ...

Solid-state battery with 50% better environmental balance on short way to production, High Performance Battery. An important milestone has been reached: The company High Performance Battery (HPB) has developed the world's first solid-state battery whose core - unlike all other solid-state battery projects - is the result of a chemical reaction within the battery.

High Performance Battery Technology GmbH (HPBT) has developed an advanced solid-state battery that offers safety, a tremendous battery lifetime and up to a 50 % better environmental balance. The solid electrolyte - based on an inorganic system - is introduced into the cell in a liquid state using a drop-in process.

The HPB Solid-State Electrolyte is formed from solid and liquid starting materials directly in the cell. Thanks to the unique drop-in production, the manufacturing of the HPB Solid-State Battery can be scaled up without the need to develop completely new production technologies.

High Performance Battery Technology GmbH reserves the right to make changes to this document and without prior notice. info@highperformancebattery HPB Solid-State Battery Engineered to store renewable energy in a safer and more sustainable way. High Performance Battery Technology GmbH (HPBT) has developed an advanced solid-state battery

A team of scientists working for Bonn-based company High Performance Battery (HPB), led by Prof. Dr. G&#252;nther Hambitzer, has achieved a decisive breakthrough in battery and storage technology with the development of the world's first solid-state battery with outstanding properties to production readiness.

The start-up High Performance Battery (HPB) based in Teufen, Switzerland, has now developed the world's first solid-state battery in which this process does not occur. Its core is the result of a chemical reaction within the battery. Unlike traditional rechargeable batteries, no solid ion conductors are inserted into the battery as finished parts.

With a consortium formed by 16 international partners from across the entire European battery value chain, SOLVE will focus on the development of 10-20 Ah Gen4b solid state batteries (Li-metal and anode-free) to revolutionize tomorrow's mobility.

The subject of battery development is the interaction of the three core components of a battery: anode, cathode and the HPB Solid-State Electrolyte as a complete battery cell. The development also includes industrial production up to the battery module (several battery cells combined form a battery module).

Overall, HPB solid-state batteries and HPB solid-state electrolyte make an important contribution to the energy and mobility transition and to reducing dependence on raw materials. While the annual demand for

storage was still 180 gigawatt-hours in 2018, it is expected to exceed 2,000 gigawatt-hours by 2030.

A team of scientists working for Bonn-based company High Performance Battery (HPB), led by Prof. Dr. Günther Hambitzer, has achieved a decisive breakthrough in battery and storage technology with the development ...

TEUFEN, Switzerland, May 31, 2021 /PRNewswire/ -- An important milestone has been reached: The company High Performance Battery (HPB) has developed the world's first solid-state battery whose core ...

With the cyclic process HPB expects to enhance the given easy recyclability of the HPB Solid-State Battery by innovative and climate-friendly recycling procedures all the way down to pyro- and hydrometallurgical extraction of raw materials. This allows for an even more sustainable transfer of waste from end-of-life batteries or production scrap ...

The HPB Solid-State Battery sets new standards in terms of the cold tolerance of batteries. Current measurement results show that an impressive proportion of its capacity can still be utilised even in extremely cold conditions - with a robust discharge rate of 1 C (complete discharge in just one hour). ...

High Performance Battery Technology GmbH (HPBT) has developed an advanced solid-state battery that offers safety, a tremendous battery lifetime and up to a 50 % better environmental ...

The Bonn-based company High Performance Battery (HPB) has achieved a decisive breakthrough in battery and storage technology: a team led by Prof. Dr. Günther Hambitzer has developed the world's first solid-state battery with outstanding properties to production readiness.

Whereas solid ion conductors are usually inserted into the battery as prefabricated parts, the HPB solid ion conductor is first created in the battery cell, similar to a "two-component glue". As a result, this technology elegantly solves significant hurdles for the series production of solid-state batteries as a possible successor technology to ...

The Bonn-based company High Performance Battery (HPB) has achieved a decisive breakthrough in battery and storage technology: a team led by Prof. Dr. Günther ...

Safety: The new HPB solid-state electrolyte is non-flammable and thus considerably safer than the flammable liquid electrolytes of conventional lithium-ion batteries. Sustainability: The HPB solid-state battery shows a 50 percent better environmental balance compared to current lithium-ion technology. This makes it the "green key to the energy ...

High Performance Battery Technology GmbH reserves the right to make changes to this document and without prior notice. [info@highperformancebattery.com](mailto:info@highperformancebattery.com) hpb Solid-State Battery Engineered to store renewable energy in a safer and more sustainable way. High Performance Battery Technology GmbH (HPBT) has



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developed an advanced solid-state battery

Germany-based High Performance Battery (HPB) has achieved a decisive breakthrough in battery and storage technology. A team led by Professor Doctor G&#252;nther Hambitzer has developed the world's first solid-state battery with outstanding properties to production readiness.

In addition, we also supply our outstanding HPB Solid-State Electrolyte as a single component for integration into automotive battery systems, offering the automotive industry a safer, more...

The HPB Solid-State Electrolyte is formed from solid and liquid starting materials directly in the cell. Thanks to the unique drop-in production, the manufacturing of the HPB Solid-State ...

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