

Media Release

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Ansmann AG designs second generation “GreenPack“ supported by sustainable Borealis polypropylene compounds

New Plastic-Compounds Boosting Mobile Energy with second generation exchangeable battery system “GreenPack”

The more renewable energy and mobility concepts are implemented, the more important it gets to pay thorough attention to the ecological footprint of the materials and processes in order to lower CO₂ - emissions. This is why the German battery experts of Ansmann AG and Borealis, one of the world's leading providers of advanced and circular polyolefin solutions, are cooperating in the development and production of the second generation of Ansmann's exchangeable battery system called “GreenPack”.

The aim of this collaboration is to design the lithium-ion battery of the next generation, Ansmann's “GreenPack”, enabling the advantages of polypropylene usage. The new generation of GreenPack battery systems will be equipped with a polypropylene housing and cell holder. Different to usual materials, the Borealis polypropylene (PP) offers better eco-efficiency. One key reason for this is the lower material density and therefore a weight advantage of PP versus typically used plastics, which contributes to a larger driving range of the e-vehicle. Other advantages are the excellent insulation properties of polypropylene and energy savings in production due to the lower melting point of the PP material. In addition, CO₂-emissions in the production of PP are generally just less than half of the footprint of the conventionally used plastic alternatives. Based on existing requirements for the battery, Borealis supports Ansmann with choosing the right material, ensuring functionality by making simulations (like battery drop tests) and securing processability and quality by optimizing the converting process.

The GreenPack exchangeable battery was taken over for further development by the mobile energy experts of Ansmann AG in August 2020. Generation one of the one-grip interchangeable energy storage device for green power currently offers 48 V nominal voltage, 1400 Wh capacity and a high max. continuous current load of 25 A. The GreenPack system is equipped with intelligent communication and standardized interfaces to allow the usage of exchangeable batteries in different devices of different producers. They can be equipped with cells of different cell chemistries and are unlimitedly scalable within the application.

GreenPack succeeds as a universal “green” batterypack solution

The GreenPack is used in e-fleets of sharing and delivery services as well as in commercial transport. It can be found in lawn mowers, snow blowers and weed trimmers used in gardening and landscaping. In associated exchange/charging stations, empty GreenPack battery modules can be swapped for full ones quickly and on demand.

Thilo Hack, as board member responsible for R&D at Ansmann AG, says: "In comparison to conventional materials, the new material developed by Borealis for our upcoming GreenPack generation will come without plasticizers. It will be lighter and more flexible than other typically used plastics; yet it will meet all chemical and mechanical safety criteria and will have a significantly lower CO₂ footprint. We are very pleased, we can make our GreenPack even greener supported by Borealis as a strong and experienced development partner!"

Borealis has a vast wealth of expertise and experience in the development of advanced and circular polyolefin solutions for the entire value chain of lithium-ion battery systems, as well as in the simulation and modelling of different components, such as cell holders or housings of the battery packs. Martyna Matelska-Jucha, Head of Borealis New Business Development: "We are excited about this opportunity to jointly develop a novel, swappable battery GreenPack with our partner Ansmann. This is another proof point for how Borealis re-invents products for new and technical challenging applications like mobile battery solutions for a more sustainable lifestyle. Those we can only achieve by working together as partners throughout the whole value chain."

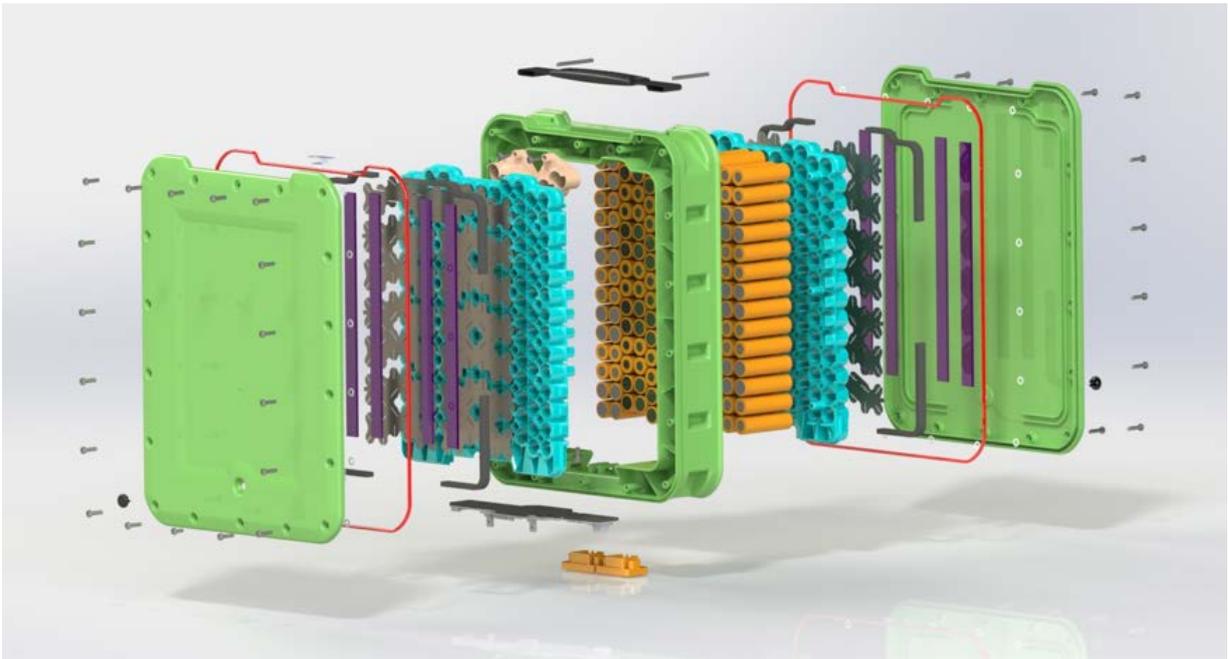


Image: The new GreenPack 2.0 – German Ansmann Group’s exchangeable battery pack-system, packed with sustainable, high-performance polypropylene compounds by global Borealis Group

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About Borealis

Borealis is one of the world's leading providers of advanced and circular polyolefin solutions and a European market leader in base chemicals, fertilizers and the mechanical recycling of plastics. We leverage our polymers expertise and decades of experience to offer value adding, innovative and circular material solutions for key industries. In re-inventing for more sustainable living, we build on our commitment to safety, our people and excellence as we accelerate the transformation to a circular economy and expand our geographical footprint.

With head offices in Vienna, Austria, Borealis employs 6,900 employees and operates in over 120 countries. In 2020, Borealis generated EUR 6.8 billion in sales revenue and a net profit of EUR 589 million. OMV, the Austria-based international oil and gas company, owns 75% of Borealis, while the remaining 25% is owned by a holding company of the Abu-Dhabi based Mubadala. We supply services and products to customers around the globe through Borealis and two important joint ventures: Borouge (with the Abu Dhabi National Oil Company, or ADNOC, based in UAE); and Baystar™ (with TotalEnergies, based in the US). www.borealisgroup.com | www.borealiseverminds.com

About Ansmann AG

Founded in 1991, the German ANSMANN AG – running two business units "Consumer" and "Industry" - is one of the leading international companies for battery, accumulator, charging, drivers and lighting technology. With its five subsidiaries in the UK, France, Sweden, China and Hong Kong, the family-owned German global player employs a total of more than 400 people in research, development, production and sales. At its headquarters in the small town of Assamstadt, the company operates a production area for cell assembly and quality testing, the central logistics and also a UN test center which is able to run all the necessary tests and test series compulsory for the transportability of lithium batteries.
www.ansmann.de
