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FRAUNHOFER INSTITUTE FOR STRUCTURAL DURABILITY AND SYSTEM RELIABILITY LBF

PRESS RELEASE

Sustainable. Safe. Future-ready.
The circular economy meets innovation at the K 2025

How can recyclates be developed to be used safely, efficiently, and sustainably in highly stressed technical applications? From October 8 - 15, 2025, the Fraunhofer Institute for Structural Durability and System Reliability LBF will be answering these and many other questions about future-proof plastics solutions at the K trade fair in Düsseldorf. Visit us at Hall 7.0, Stand 70SC05. Visitors will learn how the circular economy in plastics technology is possible and marketable.

For plastics, particularly recyclates, to be used in demanding, highly stressed components, their property profile must be optimized and adapted to each technical product. Then, they function reliably and can be manufactured efficiently and affordably.

Recyclable components are essential for sustainable product design

Fraunhofer experts will demonstrate how recyclates can be analyzed and optimized early in the product development process, even before series production begins. Visitors will also learn how to identify and adapt alternative plastics to specific applications for demanding components in various industry segments, such as transportation, electronics, construction, and packaging.

A highlight at the stand is an innovative battery housing made of plastic that is 35 percent lighter than aluminum, CO_2-neutral over the entire life cycle under certain conditions and prepared for a second life of the battery cells. This example demonstrates how Fraunhofer LBF develops sustainable lightweight construction solutions with a holistic material concept — from molecular structure and additives to stabilization and application-related testing, such as flame retardancy and media compatibility.

More information on the highlight project: www.lbf.fraunhofer.de/circulus
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More information on the circular economy

#Recycling #Sustainability #Renewable Energies #Lightweight Construction

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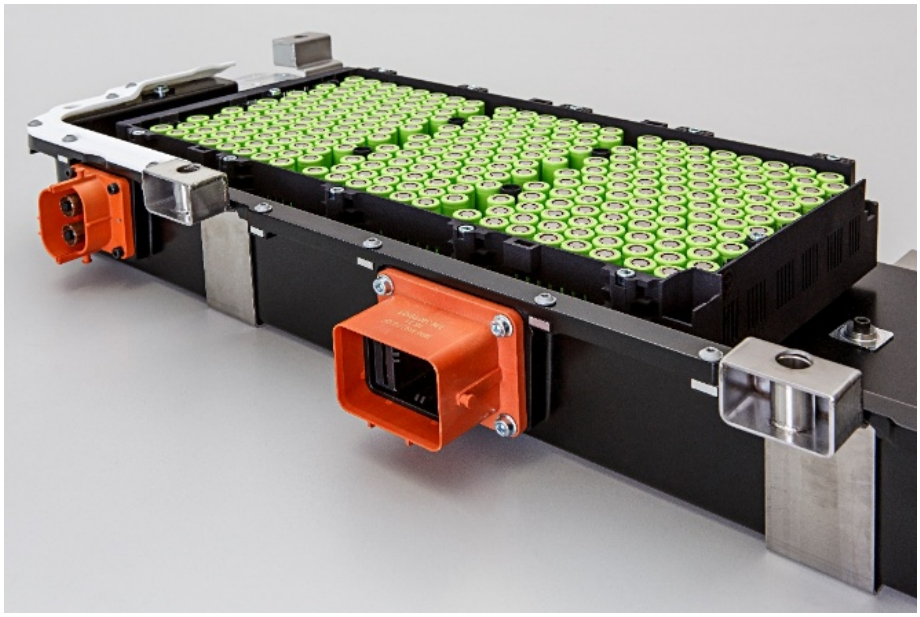

Fully recyclable battery housing for successful recycling of structural components.
Photo: Fraunhofer LBF, Raapke

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