



Progress beyond

Solvay Named Runner-Up in ‘Future of Lightweighting’ of the 2023 Altair Enlighten Award

Breakthrough with Ajedium™ PEEK film for slot liners enabling lower wall-thickness, increased copper slot fill and superior thermal insulation over incumbent materials

Alpharetta, Georgia, USA, August 2, 2023

Solvay, a global market leader in specialty materials, has been honored with the runner-up Altair Enlighten Award 2023 in the ‘Future of Lightweighting’ category for slot liners using [Ajedium™ PEEK Film](#) in the battery pack and e-motor design of electric vehicles (EV). Presented in association with the Center for Automotive Research (CAR), the [Altair Enlighten Award](#) is the industry’s only award dedicated to vehicle lightweighting and honors sustainability and lightweighting advancements that have significant potential to reduce carbon footprint, mitigate water and energy consumption, and leverage material reuse and recycling efforts.

The award was received by Solvay’s Dr. DeeDee Smith, E-Mobility Marketing Manager, and Brian Baleno, Head of Automotive Marketing, in an awards ceremony on August 1st.

“We are very proud of receiving this prestigious award, which recognizes our firm commitment to greater sustainability in e-mobility with high-performance specialty polymers,” says Brian Baleno. “As EV manufacturers are moving from 400 volt systems to 800 volts or higher, conventional paper laminate slot liners can no longer live up to the challenges arising from this trend. In comprehensive simulation testing, our Ajedium™ PEEK Film has demonstrated its outstanding property profile for improving the thermal, electrical and mechanical performance of slot liners, while enabling thinner secondary insulation and providing a more sustainable mono-material solution.”

The distinguished Ajedium™ PEEK Film slot liners were selected by the Altair jury for offering a potential mass reduction of 12 kg in the battery pack and 4 kg in the e-motor of EVs compared to the weight of systems using traditional laminates. This can make a big difference in terms of EV power consumption and reach. By achieving the same electrical resistance at only two thirds of the typical laminate thickness, the innovative PEEK slot liners also increase the available stator slot space for additional magnet wire and thus higher copper slot fill factors.



Moreover, the superior electric insulation and thermal heat dissipation of Ajedium™ PEEK enhances the thermal management efficiency, which allows designers to downsize the aluminum casting and create more sustainable e-motors with less energy and material consumption. The PEEK film shows excellent chemical resistance to automatic transmission fluids (ATF) and good adhesion to varnish. In addition, it eliminates the need for dedusting equipment and climate controlled storage, reducing energy costs and improving workspace conditions.

Ajedium™ is a trademark of Solvay.



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(Photo: Solvay, PR089)



About Solvay

Solvay is a science company whose technologies bring benefits to many aspects of daily life. With more than 22,000 employees in 61 countries, Solvay bonds people, ideas and elements to reinvent progress. The Group seeks to create sustainable shared value for all, notably through its Solvay One Planet plan crafted around three pillars: protecting the climate, preserving resources and fostering better life. The Group's innovative solutions contribute to safer, cleaner, and more sustainable products found in homes, food and consumer goods, planes, cars, batteries, smart devices, health care applications, water and air purification systems. Founded in 1863, Solvay today ranks among the world's top three companies for the vast majority of its activities and delivered net sales of €13.4 billion in 2022. Learn more at www.solvay.com.

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