

Next-Generation Aluminum Doors Can Offer Automakers An Affordable, Lightweight Solution

Latest study shows new aluminum door design achieves more than 45 percent weight savings compared to current production steel doors

ZURICH, July 8, 2021 /PRNewswire/ -- Alumobility, a non-profit organization focused on proven innovative solutions to advance the adoption of aluminum automotive body sheet, announced today the results of its technical study demonstrating affordable lightweighting through the proposed conversion of a mass-produced C-segment SUV passenger door from steel to aluminum.

The results of the study show the new aluminum door design meets or exceeds safety and other customer performance criteria to reach 45 percent weight savings. While the study focuses on a mid-size SUV door, Alumobility expects comparable results for other door architectures.

"This latest research clearly shows that next-generation aluminum doors can provide automakers with affordable, lightweight solutions that are built for a circular economy," said Mark White, Executive Director, Alumobility. "Through collaborative technical projects like this, Alumobility will help fulfill the promise of a lighter, more efficient, more sustainable mobility future benefiting automakers and consumers."

As automakers continuously look for ways to lightweight vehicles at a competitive cost throughout the manufacturing process, adoption of aluminum doors has increased exponentially. Over the last two decades, adoption has grown from use in the premium segment to millions of aluminum doors produced annually, primarily in the booming SUV, pick-up truck and battery electric vehicle markets. The next-generation aluminum door design can offer greater value given the lower gauges and higher strength levels through new innovative aluminum alloys that are now available. These lightweight doors would also be highly recyclable at a vehicle's end of life, which contributes to overall sustainability, reducing CO2 emissions and enabling a more circular economy.

Additional key results of the study include:

- Recent advancements in material utilization, processing and joining allow aluminum doors to be more cost-effective than ever. With innovative joining techniques, fewer parts may be required, further reducing complexity and assembly time.
- New aluminum door design enables breakthrough performance via better formability and higher strength.
- Customer targets for visual obstruction, ingress-egress and frame stiffness are maintained.

To learn more about this technical solution, please join Dr. Axel Foerderreuther and Dr. Mark White of Alumobility for a free, 60-minute webinar, where they will discuss aluminum vehicle door architecture and the benefits of designing with lightweight, sustainable aluminum auto body sheet. The webinar, which includes a Q&A session, will be held Thursday, July 15, 2021 from 11:00 AM - 12:00 PM EDT / 5:00 PM - 6:00 PM CEST. [Register](#) today to attend the webinar or receive a link to the replay.

About Alumobility

Alumobility is a global ecosystem of leading aluminum and downstream technology partners that supports automotive manufacturers in creating lighter, safer, smarter and more sustainable vehicles. The non-profit association was founded to focus on proven technical solutions to advance the adoption of aluminum automotive body sheet (ABS). Working with global automakers, Alumobility will help fulfill the promise of a lighter, more efficient, more sustainable mobility future.

For more information, visit [Alumobility.com](https://alumobility.com).

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