

AP&T's focus on high-strength aluminum at Automotive Circle — Materials in Car Body Engineering

Which material concepts and manufacturing processes are available today, and which ones will be viable in the foreseeable future? This was the main question addressed by the Materials in Car Body Engineering conference, which was organized by Automotive Circle in Bad Nauheim, Germany, May 15-17.

Dr. Michael Machhammer, senior engineer technology development at AP&T, and Dr. Henk-Jan Brinkman, head of TCS and product development at Hydro Aluminium, presented AP&T's multi-purpose production line and a high-strength aluminum alloy, which is tailored for AP&T's hot forming process.

"Automotive manufacturers, subcontractors and researchers gather at the Automotive Circle's event to present new ideas, processes and products. Materials in Car Body Engineering was an excellent opportunity to talk about how our production solution for hot forming of high-strength aluminum enables a cost-effective production process, enhanced manufacturability and increased functionality of lightweight car body components," says Michael Machhammer.

With AP&T's solution, complex-shaped components can be formed out of high-strength aluminum. This allows reduction of material thickness and substitution of steel, thus enabling car body weight to be reduced by 30 to 40 percent.

"There is a great deal of interest in the industry for the technology itself, but we also received many questions about the financial aspect. When considering the total part cost, our solution is very competitive. Among other things, components that are currently assembled from several different parts can now be produced in one forming step."

Visitors to Automotive Circle's next conference in October, EuroCarBody 2018, will have the opportunity to gather more information about AP&T's new production technology. AP&T will show a complex-shaped car body component which exhibits design elements based on a door ring and door inner geometry.



Caption:

Dr. Michael Machhammer from AP&T and Dr. Henk-Jan Brinkman from Hydro Aluminium presented how hot forming of high-strength aluminum enables new opportunities for manufacturing lightweight and high-strength car body parts. (Photograph: Automotive Circle).

aptgroup.com

Automotive Circle is a network of leading experts in car body engineering, painting and assembly: <http://www.automotive-circle.com/en>