

Press Release



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CFRTP composites from Covestro stand out in IT applications

Innovative materials for future lightweight construction

Recipient of the European Plastics Innovation Award

Lightweight materials are in greater demand than ever – and not just in the automotive industry. Manufacturers of electronic devices such as laptops, tablets and smartphones also want to slim down their products. The advantages are obvious: while consumers appreciate light, thin devices, manufacturers also benefit from lower shipping costs while reducing their logistics-related ecological footprint.

Covestro has developed a sophisticated composite technology that opens the door to a sustainable future for lightweight products. It is based on continuous fiber-reinforced thermoplastics (CFRTP) in combination with a highly efficient production method. The company recently received this year's European Plastics Innovation Award for its composite "A-Cover" for next-generation laptops. The development took second place in the category "Best Lightweight Innovation."

Pushing the boundaries

"Winning this prize confirms that we have truly pushed the boundaries with our CFRTPs, in order to meet the needs of tomorrow," says Dr. Michael Schmidt, who, together with David Hartmann, heads the Thermoplastic Composites department at Covestro. "These composites are ideally suited for producing thinner, lighter and yet more robust parts for IT devices."

David Hartmann particularly highlights the major weight advantage: "Compared to a conventional magnesium-aluminum alloy, we achieve weight reductions of approximately 15 percent. And the A-Cover composite exhibits the same good



bending and torsional rigidity as the metallic material.” Moreover, CFRTs meet Underwriters Laboratories’ flammability standard of V-0.

Contemporary design

The composites give product designers an unprecedented degree of design freedom. For example, various combinations of resin and carbon or glass fibers can be used for optical effects. Textures can also be created, for example within the mold or by sandblasting, CNC milling and laser cutting.

The A-Cover composites come close to achieving the quality of a Class-A surface. An environmentally friendly water-based two-component finish with optimal adhesion to polycarbonate substrates provides the visual upgrade and permits individual design.

Fast and efficient production

By utilizing a “single mold manufacturing” concept, Covestro is able to combine the three conventional steps of preheating, thermoforming and functional integration into a single process. The results are twofold: substantially lower costs and shorter cycle times.

The European Plastics Innovation Award was instituted by the pan-European trade association PlasticsEurope and the Society of Plastics Engineers, SPE. The awards honor companies that use plastics to develop new ideas, methods, products or technologies that meet the needs of society while respecting the demands of sustainability.

About Covestro:

With 2016 sales of EUR 11.9 billion, Covestro is among the world’s largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. Covestro has 30 production sites around the globe and employs approximately 15,600 people (full-time equivalents) as of the end of 2016.

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