

Grammer investing in more sustainable products: Alternative materials and lightweight design improving economic footprint

- Raw materials account for up to 70 percent of the carbon footprint of products
- Partnership forged with the Institute of Plastics and Circular Economy at Leibniz University Hannover, Germany: advice on materials, support for life cycle assessments

Grammer AG, December 2, 2021 – Hemp, wood and flax as the basis for biopolymers (plastics made from renewable raw materials), fungal structures or spider webs as biological models for new construction solutions, plus aspects relating to the circular economy: On its way towards becoming a Green Company, Grammer is pursuing various approaches in the development of products that have an improved climate footprint.

Grammer is aiming to reduce its carbon emissions worldwide by 50 percent by 2030. In addition to adopting measures such as the use of renewable energy sources, it is also focusing on its own products. "We calculate the carbon footprint for each of our products. At 60 to 70 percent, the life cycle assessment of the raw materials used accounts for the largest share of this," explains Dr. Michael Borbe, Senior Group Vice President R&D at Grammer. "That's why selecting appropriate materials, using recyclates and pursuing innovative lightweight designs are among our most effective levers."

Grammer's Materials & Sustainability pre-development team has been working closely with experts from the Institute of Plastics and Circular Economy (IKK) at Leibniz University in Hannover, Germany, since mid-2021. They are supporting Grammer in its search for materials and in testing new manufacturing technologies and processes. Grammer is also drawing on IKK's valuable, long-standing experience in creating standardized life cycle assessments. Borbe: "In addition to this, we are tapping into new, environmentally friendly materials via partnerships with well-known material manufacturers and investigating their suitability for our products."

Recent examples from Grammer's portfolio show that this is not just a pipe dream but is already being implemented in ongoing projects: Media contact: Günter Krämer Phone: +49 9621/66-2171 Guenter.Kraemer@grammer.com

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- At Auto Shanghai 2021, Grammer unveiled **console modules and air ducts for passenger cars** that are sustainably produced from recycled materials.
- Presented in October 2021, the Ubility One product family for buses, trains and autonomous shuttles in urban passenger transportation already meets high requirements with respect to climate neutrality thanks to its end-to-end lightweight construction and sustainable design: The ultra-lightweight Ubility Light seat achieves a weight advantage of 60 percent compared with conventional seat shells thanks to its clever product design and well-thoughtout use of materials. In European urban train traffic alone, the Ubility Light could help to avoid 130,000 tons of carbon emissions per year. In addition, the Ubility Light is the first seating series for buses and trains to be "circular ready", i.e. designed for recyclability and material separation, throughout its entire product life cycle. The Ubility Air dispenses with composites, relying instead on a mono-material made from recycled materials, making the seat up to 100 percent recyclable.
- Funded by the German Federal Ministry of Education and Research, the **BOOST** research project is exploring the possibility of a bionically inspired seating system for commercial vehicles, trains, and buses. With the design of the seat cushion, Grammer and its partners are being guided by the chamber structures of bryozoan colonies and the spur of a puffball, while the cushion support is modeled on a spider web.



Scouting for more sustainable products: The materials lab of Grammer's in-house design studio is working on the use of alternative materials, among other things.

Company profile

Grammer AG, headquartered in Ursensollen, Germany, is active in two business segments: Grammer develops and supplies high-quality interior and operating systems as well as innovative thermoplastic components for the global automotive industry. For trucks, trains, buses, and off-road vehicles, Grammer is a full-service provider of driver and passenger seats. Currently, Grammer AG employs around 14,000 people in 20 countries worldwide, with sales of around 1.7 billion euros in 2020. Grammer shares are listed in the Prime Standard and traded on the Munich and Frankfurt stock exchanges as well as via the Xetra electronic trading system.