



Jack Wolfskin's New 3D-Printed Aerorise Carry System Elevates Backpack Design with Zonal Body Mapping Technology

- 3D printing advancements help achieve superior comfort and support beyond layered foam standard
- Four independent 3D-printed pads in the shoulders and lumbar distribute weight and act as shock absorbers without losing their structural integrity
- Open-cell design improves ventilation to reduce body temperature in areas prone to overheating

IDSTEIN, Germany (June, 2022) – Backpack design takes a futuristic leap forward through Jack Wolfskin's new 3D-printed carry system featured in its latest series of Aerorise hiking backpacks. For decades, hikers and outdoor enthusiasts have been faced with a choice when choosing backpacks: durability or lightness, comfort or ventilation.

Jack Wolfskin's new Aerorise carry system offers the perfect solution by placing four independent 3D-printed panels on the shoulders and lumbar areas to provide a lightweight, multi-zone body fit. The panels' open cell structures with thousands of individual struts enhance ventilation, maintain comfort, and improve load control even with heavier loads.

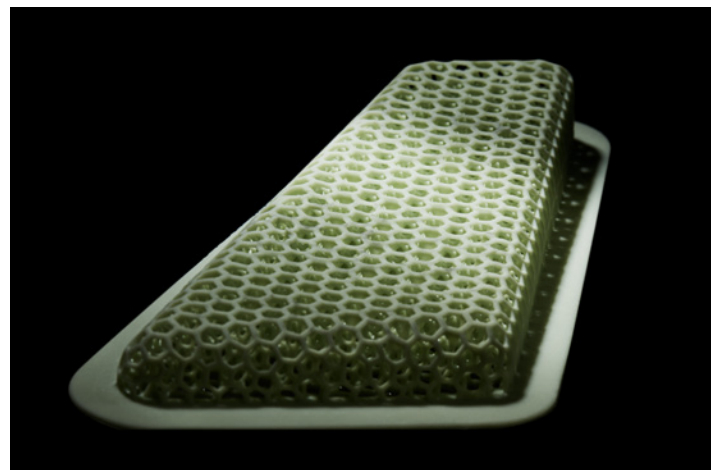
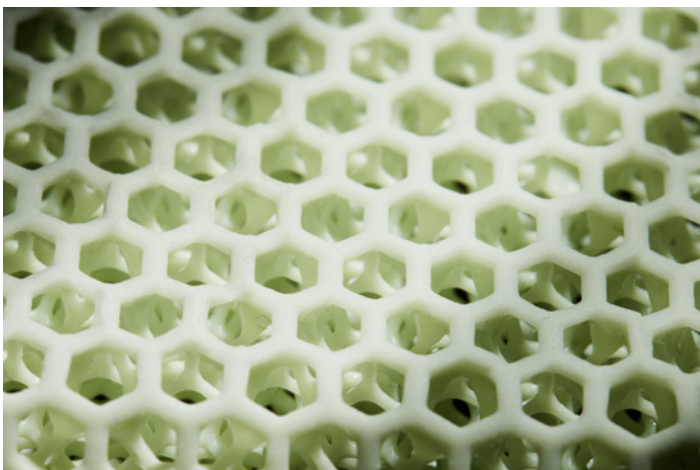
The technology, already in use by the sporting goods industry for high performance running shoes, is provided by polymer solutions provider Oechsler, an additive manufacturer in Germany, and Carbon, a pioneer in 3D printing. It enables a combination of lattice structure patterns that provide different degrees of vertical and horizontal firmness – soft where comfort is key and firm where more structure is necessary.

The design is highly breathable and capable of reducing back temperatures by up to 5°C (41°F). In line with Jack Wolfskin's commitment to providing high performing sustainable equipment, there is less waste within the production of the 3D printed designs compared to conventional production. Due to the customizable nature and control over structural attributes of the 3D cushioning, only as much material is used as is ultimately needed. Additional gluing steps or assemblies are not required unlike traditional carry systems.

“Comfort, load control and ventilation are age-old challenges in pack design,” said Magdalen Hamel, Category Manager Equipment, for Jack Wolfskin. “The technology presented in Aerorise benefits hikers on the trail and takes the industry in a new direction. The design is really impressive from an engineering perspective and further supports our belief that together, in cooperation with partners, we can make a notable difference and take the industry a step forward.”

The body mapping pads are featured in the flagship 3D Aerorise 40 backpack available beginning fall 2022 in Jack Wolfskin's webshop. The lightweight backpack is constructed with a durable 100 % recycled 70D polyamide textile and features 40 liters of carrying capacity with one waterproof main compartment and a generous top lid pocket. Adjustable cord placements enable customizable compression and slotted webbing simplifies securing additional equipment to the exterior. The complete Aerorise series will be available in the summer of 2023, featuring a 20-liter version and a 30-liter roll-top model.

“Additive manufacturing is changing the outdoor equipment and sporting goods world,” said Matthias Weißkopf, General Manager, OECHSLER Motion at Oechsler. “Working with Jack Wolfskin gave us the opportunity to further develop the Aerorise hiking backpacks and solve problems that weren't achievable until recent years. Aerorise is the start of a new movement in improved product development through 3D design.”



The 3D Aerorise 40 backpack is the latest in Jack Wolfskin's chest of innovations and collaborative products, including tapeless seam construction, mono materials, Wax Weave – synthetic wax treatment and multiple sustainable material and manufacturing stories that will be released this year.



Open cell structure
with thousands of
individual struts

Highly breathable and
reduces temperature by
up to 5°C

Zonal cushioning:
Varying degrees
of hardness in
three dimensions

Absorbs and returns
energy more efficiently
than traditional foam



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