

EDAG car with textile skin set for Geneva show

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Making its debut at the Geneva Motor Show 2015 is the EDAG Light Cocoon. This is promoted as a new dimension for lightweight construction, a sportscar with a textile outer skin panel. The EDAG Light Cocoon concept features weatherproof fabric skin stretched over a 3D-printed skeletal frame. Adding to its showmanship, the car has backlight technology which illuminates the skeleton-like, organic structure, bringing the car to life, said the company. EDAG is an engineering partner to the international automotive industry.

EDAG's engineering specialists have expanded their vision of a "bionically inspired" body structure. That inspiration is described as a vision of sustainability – as demonstrated by nature. Their goals were a



car that is lightweight, efficient, and without any waste. The EDAG designers took a leaf as their inspiration for the lightweight <u>outer skin</u>. Just as with a leaf, which has an ideal structure with a lightweight outer skin stretched over it, a textile skin covers the EDAG Light Cocoon. As such they have created what Associate Editor Jonathon Ramsey at *Autoblog* refers to as a fabric membrane <u>stretched</u> over a skeletal structure.

The engineers used 3D printing for their concept. Instead of treating the body as a closed surface, any material not actually needed for the special load cases was removed. According to *3DPrint.com*, the company is on to the role that 3D printing technology will play in the <u>future</u> of car manufacturing and are "well out of the starting gate in developing concept vehicles that employ the use of 3D printing for parts, mainly starting with a complete outer shell or skin."

Key to their achievement of the EDAG Light Cocoon has been their choice of their project partner, which is Jack Wolfskin, a producer of outdoor wear and equipment. The latter supplied the stretch fabric, extremely weatherproof, to serve as the outer body skin. The company said that "weighing no more than 19 g/m², the Jack Wolfskin material, called Texapore Softshell, supports maximum lightweight design requirements with minimum weight." This material is strong yet four times lighter than standard copier paper. The combination of skin with additively manufactured structure will draw attention at the Geneva motor event scheduled for March next year.

TopSpeed.com thinks the car's appearance at the Geneva event will do more than just entertain the curious; the Light Cocoon idea is noteworthy. "Straight-line <u>performance</u>, cornering, braking, and fuel mileage all benefit from saved weight. Less material means cost savings as well. And in a world where ounces and dollars matter, the Light Cocoon might just be onto something."



More information: EDAG: www.edag.de/en/edag/news-detai ... ht-construction.html

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