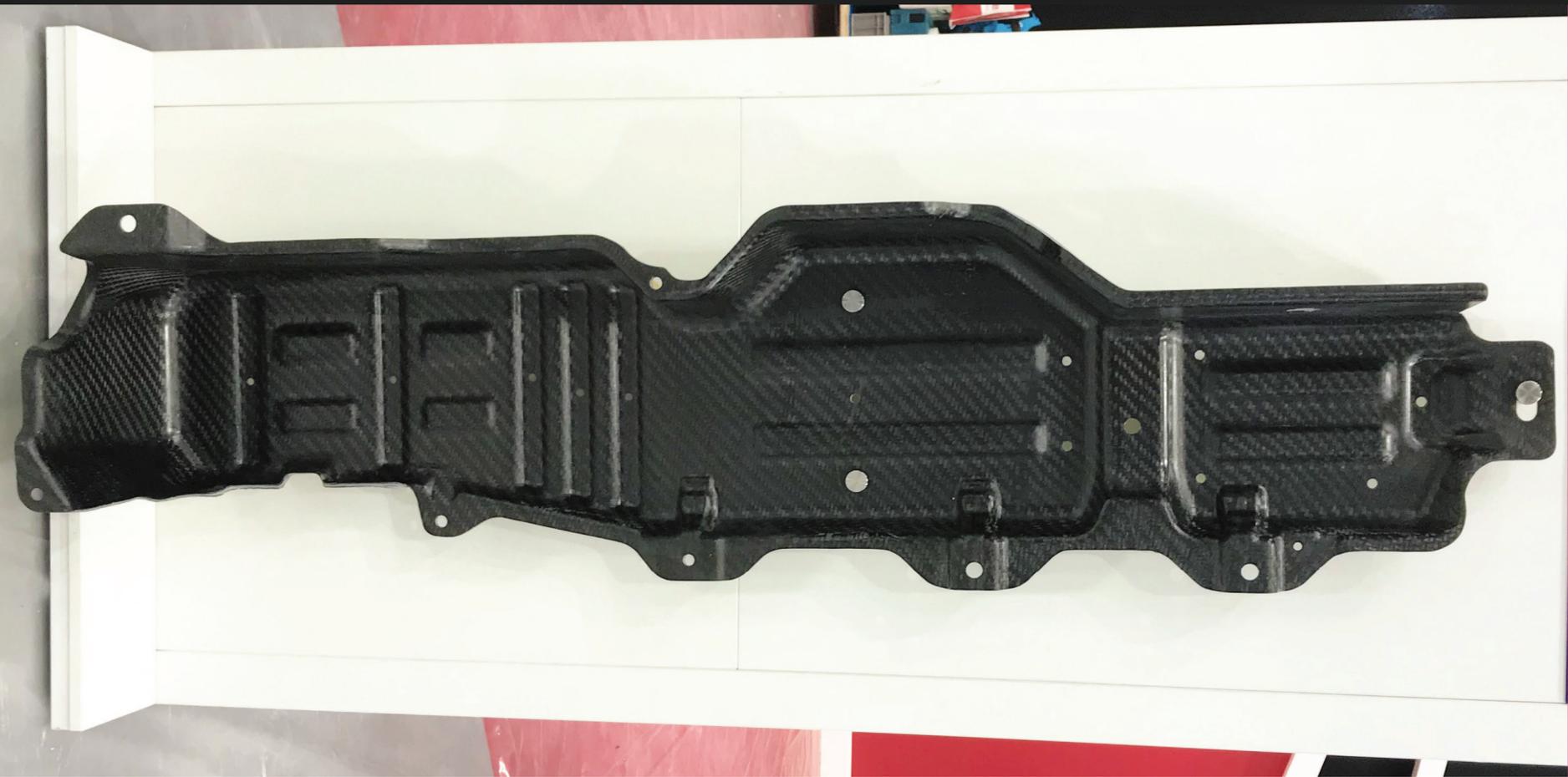


Future of Lightweighting Entry



Faurecia

Lightweight composite vehicle underbody protection

In the automotive industry, weight saving is a key point to improve energy efficiency of a vehicle. Today, underbodies of vehicles with off-road capabilities are protected from abrasion, stone chipping and object penetration largely by a steel plate. Due to stringent road test requirements its mass is important, close to 20 kg. It is clear that this part has obvious lightweighting potential.

To explore this possibility, Faurecia has partnered with Hexion to come up with an innovation which, when it replaces current steel underbody protection, is possible to achieve a weight saving of 53%, with equivalent performance. This innovation utilizes dry fabrics, resin injection with the RTM process and trimming to create a new part that is assembled directly on the car on the production line. The composite material definition answers to specific criteria such as abrasion and impact behavior combined with a high level of stiffness.

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