

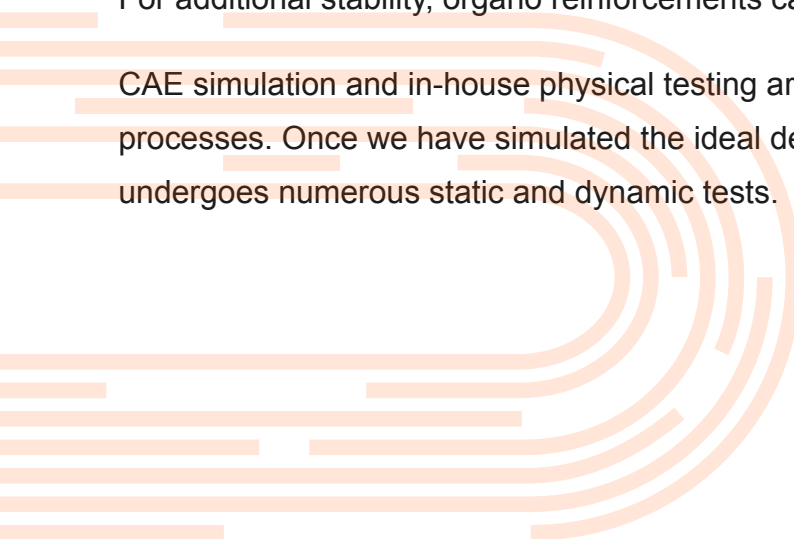
Kautex Pentatonic Underbody Protection System Offers a Protective Solution for an Intrusive Situation

While full of potential environmental benefits, electric vehicles (BEV) pose new challenges for OEMs versus their internal combustion engine (ICE) counterparts. One example of this is protecting the battery from road debris or other intrusions that could damage the enclosure or the cells. In an ICE vehicle, this concern is mostly limited to off-road driving, but for an EV, damage to the battery enclosure or the cells could lead to an expensive replacement or even writing off the total cost of the vehicle.

Kautex's Pentatonic underbody protection system offers a lightweight, durable solution to this challenge. Constructed from the same thermocomposite material as our Pentatonic battery enclosure, the system offers the same benefits as our full Pentatonic solution: improved corrosion resistance, greater insulation and design flexibility and, perhaps most important in this situation, improved serviceability. Moreover, our underbody protection system offers these benefits with up to a 50% reduction in weight versus its steel counterparts, reducing the vehicle's total weight and CO2 emissions.

Working closely with our customers, Kautex designs the underbody protection system that best fits their needs, from an all-thermocomposite design to more complex designs of aluminum and thermocomposite-hybrid to meet different impact requirements for on-and-off road applications. For additional stability, organo reinforcements can be integrated during the production process.

CAE simulation and in-house physical testing are basic requirements in any of our design processes. Once we have simulated the ideal design, a physical prototype is constructed and undergoes numerous static and dynamic tests.



Coupling our underbody protection system with our Pentatonic Battery System will help OEMs reduce weight and CO2 emissions while offering advantages that steel and aluminum solutions can't match. As EVs become mainstream, we can expect more unforeseen obstacles to arise regarding the safety and shielding of the battery pack. Kautex, with its proven capabilities in design, testing, validation and global productions, can serve as a trusted partner to solve these complex challenges.

For more information, visit [Kautex.com](https://www.kautex.com).

ORIGINAL URL

<https://insights.kautex.com/en-WW/226319-kautex-pentatonic-underbody-protection-system-offers-a-flexible-solution-in-an-intrusive-environment>

ABOUT KAUTEX

At Kautex, we are driving the future. As a Tier One automotive supplier with more than 30 plants in 13 countries, Kautex designs, develops and manufactures traditional and hybrid fuel systems, advanced cleaning solutions for assisted and autonomous driving, engine camshafts and plastic industrial packaging solutions. A pioneer in the design and manufacture of automotive plastic fuel systems, Kautex is expanding its portfolio to offer smart products and data-driven services to our customers, including thermoplastic composite and composite-metal hybrid battery systems. From a lightweight battery system to a hybrid fuel system to autonomous drive vehicle cleaning systems, Kautex is committed to pioneering solutions for the era of new mobility.

Our employees are part of a global community committed to solving customer needs, leveraging diverse skillsets, making sustainability a differentiator, embracing the diversity that is part of a global, multi-industry leader and creating an environment where employees can build a dynamic career. Together, we are reimagining the future of mobility.

About Textron Inc.

Textron Inc. is a multi-industry company that leverages its global network of aircraft, defense, industrial and finance businesses to provide customers with innovative solutions and services. Textron is known around the world for its powerful brands such as Bell, Cessna, Beechcraft, Hawker, Jacobsen, Kautex, Lycoming, E-Z-GO, Arctic Cat, and Textron Systems. For more information, visit: www.textron.com

Certain statements in this press release are forward-looking statements which may project revenues or describe strategies, goals, outlook or other non-historical matters; these statements speak only as of the date on which they are made, and we undertake no obligation to update or revise any forward-looking statements. These statements are subject to known and unknown risks, uncertainties, and other factors that may cause our actual results to differ materially from those expressed or implied by such forward-looking statements.



Kautex