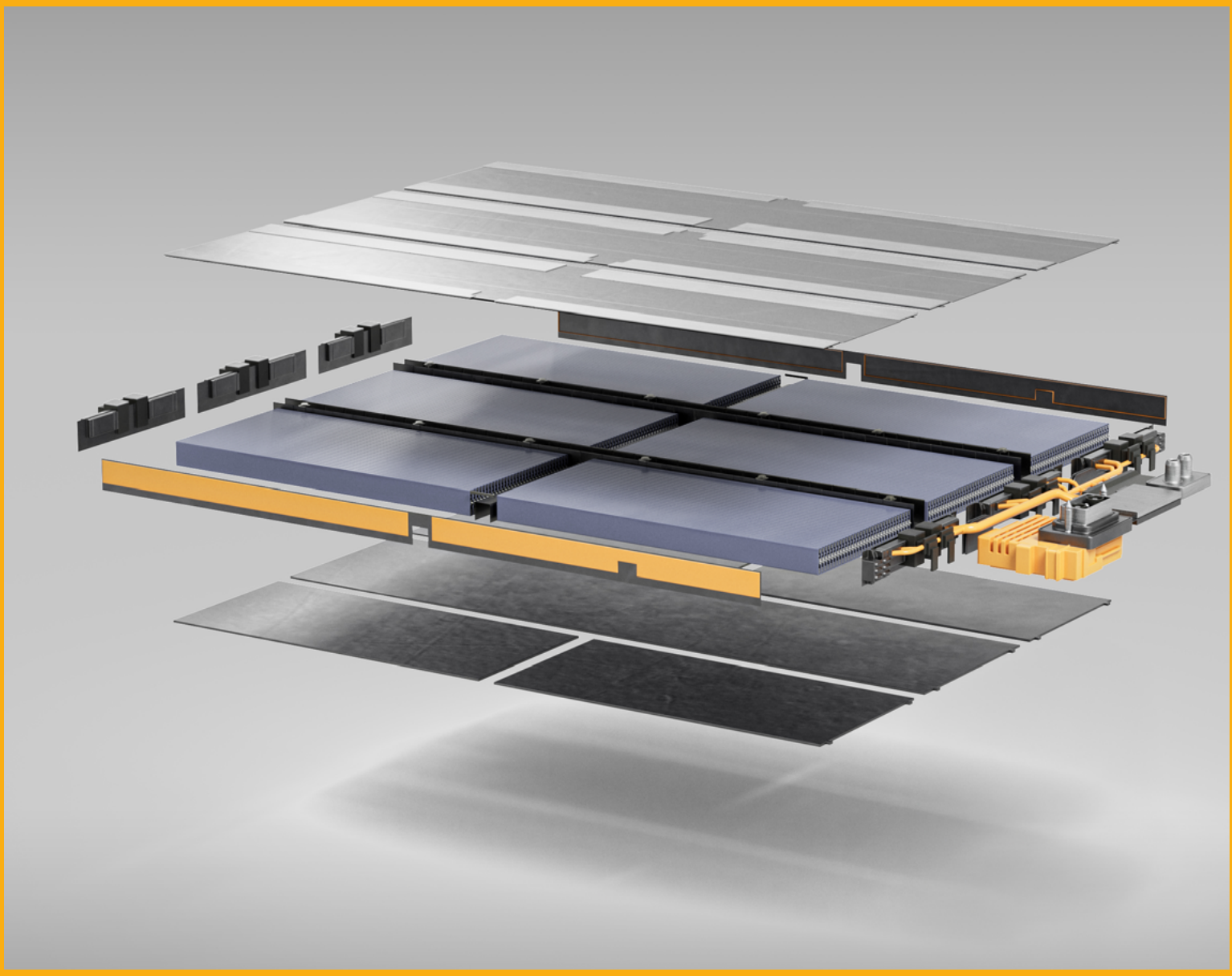


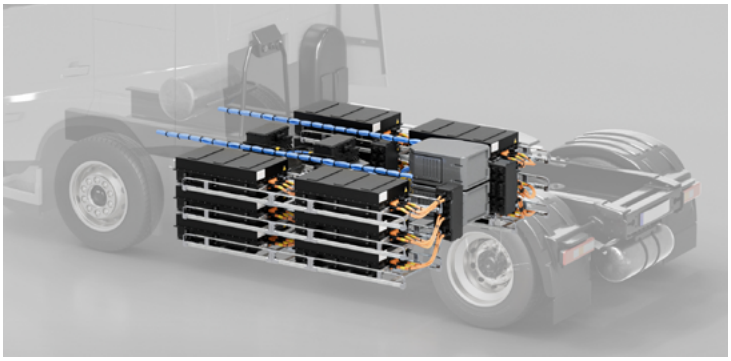
ENCLOSURE SEALING BEYOND THE EXPECTED
SEALING SOLUTIONS FOR BATTERY HOUSING

BUILDING TRUST

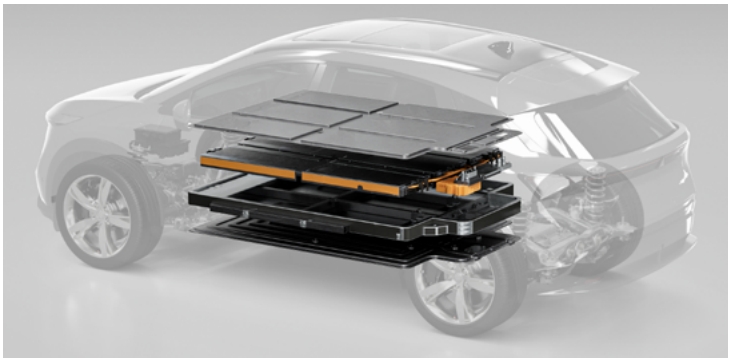
SEALANTS FOR BATTERY

MOVING SEALING TECHNOLOGY FORWARD

EFFICIENCY REALISED WITH SIKA. Sealing is at the heart of what Sika do. From the very first sealant method developed over 100 years ago, our core competency has remained the same, being a market leader in the field of sealant technologies. Our long-term experience allows Sika to pull on this experience to produce new and modern solutions for the highly technical demands of the battery market.



Automated application of Sikaflex® sealants along with Sika® Booster technology is commonplace in many industrial and automotive settings. With this level of expertise available to our customers Sika is a reliable partner for developing processes in the application of battery enclosure sealing materials. Utilizing Sika® Booster technology allows for fast and secure sealing of the battery pack so end of line pressure and leak tests can be conducted quickly allowing the fast flow of product at end of line.



Enclosing the battery pack, also called battery lid sealing is made secure with Sikaflex® materials. After application, the wet applied product will conform to many surfaces and allow for tolerances across the pack to achieve the seal required from water, air and dust ingress. Sika can support these applications with adhesion tests to the materials used in the pack to ensure the right product is chosen for the application.

Product	Chemical base	Characteristics	Elongation at break	Tensile strength Mpa	Applications
Sikasil® AS-110	1-component silicone	– Easy application – Excellent temperature resistance	350%	2.0	Lid sealing
Sikaflex® 953	2-component STP	– Excellent adhesion to many substrates	450%	2.5	Lid sealing Pack sealing
Sikaflex® 530	1-component STP	– Sprayable – Easy automation	75%	2.0	Pack sealing
Sikaflex® 283 eLS + Booster	1-component polyurethane plus booster	– Accelerated curing – Fast green strength	500%	6.0	Lid sealing Pack sealing

INNOVATION IN SEALING

ADDITIONAL SEALING METHODS FOR MODULES OR CELL-TO-PACK FORMATS

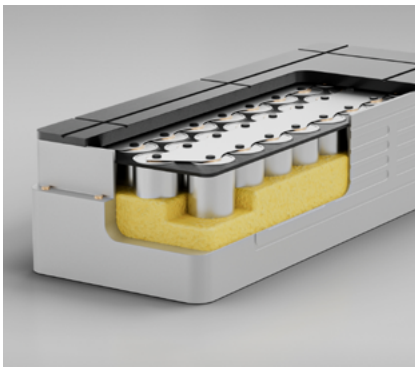
INNOVATIVE SOLUTIONS WITH SIKA:
Continuous improvement is at the heart of our R&D teams globally and Courage for Innovation is one of our core values. Alongside sealant methods utilising Sikaflex® and Sika® Booster Technology we have new, cutting edge products to enhance our customers production processes whilst maintaining the demanding high quality requirements for safety in the battery market. CIPG or Cure-in-place-Gaskets are based on polyurethane chemistries which enable quick automated application and provide easy access later in the products life to facilitate service, reuse or recycling. Alongside CIPG, elastic foaming for potting of battery cells will give additional sealing performance whilst providing a lightweight solution to keep weight down. These products offer flexibility in the manufacturing process, the potential for increasing throughput, as well as industry-leading performance.

"SIKA'S EXPERIENCE WITH POLYURETHANE TECHNOLOGIES ALLOWS US TO BRING DIVERSE FORMULATIONS TO MARKET FOCUSSING ON CUSTOMER NEEDS. THIS GIVES US THE ABILITY TO BRING KEY INNOVATIONS TO THE BATTERY" MARKET."

Stuart Selwood, Global Business Development Manager E-Mobility

CURE-IN-PLACE-GASKETS

- FAST PROCESSING
- EXCELLENT COMPRESSION PROFILE
- EASY SERVICEABILITY



ELASTIC FOAM ENCAPSULATION

- LIGHTWEIGHT
- EXCELLENT FLOW BEHAVIOUR
- HIGH THERMAL INSULATION

SEALING WITH SIKA. Good sealing is integral for optimum performance and safety in the battery environment, whether for mobility applications or stationary energy storage. Finding the balance between securing the battery housing along with systems to allow for easy access are an important contributor to the circularity required in battery development. Sikas wide range of solutions will provide options for manufacturers and their diverse array of battery designs to go beyond safety and performance expectations.

MOVING THE BATTERY INDUSTRY FORWARD WITH A FULL RANGE OF SEALING AND BONDING SOLUTIONS

	STRUCTURAL BONDING		
SEALING			
LOW STRENGTH [0.5 – 3 MPA]	MEDIUM STRENGTH [3 – 10 MPA]	HIGH STRENGTH [10 – 15 MPA]	VERY HIGH STRENGTH [> 15 MPA]
STP **1C PU** **Silicones**	**STP-Hybrid** **2C PU**	**2C PU** **Acrylates**	**Epoxy** **Acrylates**
LID/TRAY SEALING	**STRUCTURAL ASSEMBLIES OF MODULES/CELLS**		**STRUCTURAL BONDING OF BATTERY TRAY**
Body shop substrates Fire retardant Nonpermanent sealing	Adhesion to PET, bare Al, coatings, ABS, (...) Fast/slow curing – Process requirements Fire retardant, dielectric properties (...) Re-work, debonding.		Body shop substrates Mainly cold applied No surface preparation

MOVING INDUSTRIES FORWARD

COMBINING GLOBAL REACH WITH LOCAL EXPERTISE

WHO WE ARE

Sika is a specialty chemicals company with a globally leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing, and protection in the building sector and industrial manufacturing. Sika has subsidiaries in 102 countries around the world and, in over 400 factories, produces innovative technologies for customers worldwide. In doing so, it plays a crucial role in enabling the transformation of the construction and transportation sector toward greater environmental compatibility. With more than 34,000 employees, the company generated sales of CHF 11.76 billion in 2024.

Our most current General Sales Conditions shall apply.
Please consult the Data Sheet prior to any use and processing.

FOR MORE INFORMATION:
automotive.sika.com/battery-sealing-solution

SIKA SERVICES AG
Allmend 2
8967 Widen
Switzerland

Contact
Phone +44 436 40 40
Fax +44 436 55 30
www.sika.com

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