



Press Release

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Complete solutions for e-mobility

Sealing underbody battery housings efficiently, precisely, and safely

Düsseldorf/Köln – With its wide range of technologies and know-how, Henkel is the partner of choice for complete solutions in the automotive industry and especially for electric vehicles. Products for conductive coatings and thermal interface materials, as well as assembly adhesives and liquid seals, are used to protect battery packs in electric cars. An important prerequisite for maintaining the service life of electric batteries is a permanently functioning seal for the battery housing in the car underbody.

The battery housings installed in the car underbody are seamlessly sealed with the room temperature cross-linking 2-component polyurethane foams from the Sonderhoff Fermapor K31 product family. They protect the electric batteries against moisture, corrosion, and dust. They also dampen vibrations and are resistant to temperature and chemicals on the polyurethane material specifics. Protection against these influencing factors helps to improve the long life of the E-batteries.

The die-cast aluminum housings for holding the electric batteries are sealed efficiently, precisely, and securely using FIPFG (Formed-In-Place-Foam-Gasket) technology. The CNC-guided mixing head of the Sonderhoff mixing and dosing machine moves along the housing geometry and applies the 2-component polyurethane sealing foam Sonderhoff Fermapor K31 with precise contours. After foaming, a seamless foam gasket is produced which cures at room temperature.

The elastic foam cell structure of the seal is compressed when the battery housing cover is screwed tight. Thus, the housing and cover are sealed to each other. The excellent resetting ability of the foam sealing allows the housing to be opened and re-closed repeatedly for maintenance purposes. At the same time, the sealing effect of the housing seal is maintained

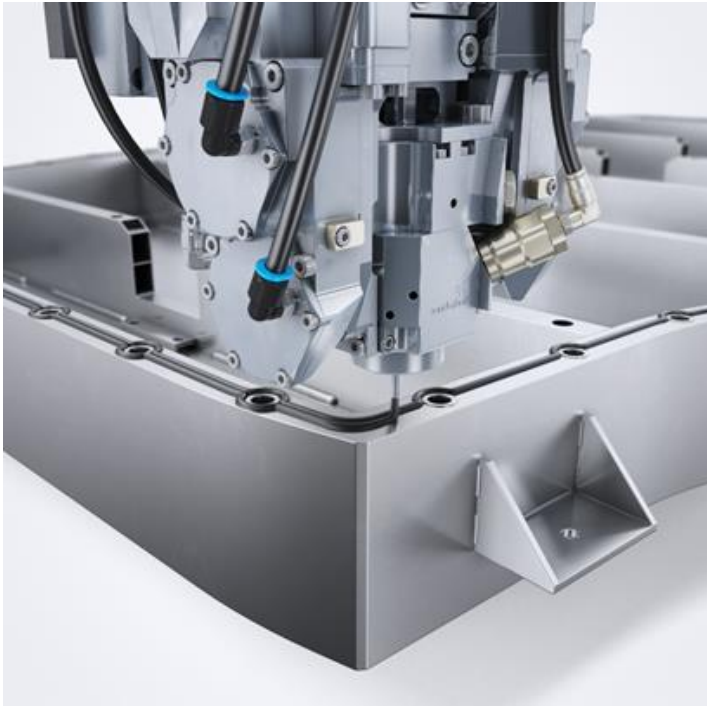
by the consistently good compression of its foam structure. The housing is sealed, and the batteries are protected against splash water and weather influences.

With the Sonderhoff System Solutions, from material systems to mixing and dosing equipment to contract manufacturing, Henkel offers a one-stop solution. Henkel's experts provide application technology advice from the design phase of the components through to fully automated material application using Formed-In-Place (Foam-Gasket) technology in series production. The tailor-made automotive solutions with products from the Sonderhoff portfolio range from foam gaskets based on polyurethane or silicone and systems for bonding and potting to mixing and dosing machines for automated material application on industrial components. Alternatively, Henkel also takes over the sealing, bonding, or potting of components in contract manufacturing.

About Henkel

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2019, Henkel reported sales of more than 20 billion euros and adjusted operating profit of more than 3.2 billion euros. Henkel employs more than 52,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com.

Photo material is available at www.henkel.com/press



Precisely contoured double seal application on the battery housing with polyurethane sealing foam Sonderhoff Fermapor K31.

Contact Florian Kampf
Phone +49 221 95685-285
Email florian.kampf@henkel.com

Henkel AG & Co. KGaA