



## Press information

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Sealing solutions from Henkel enable repair

### Sustainable solutions with Sonderhoff FIPFG technology

Düsseldorf – High-quality products are more durable and therefore more sustainable because they help to conserve material resources and reduce waste. These goals are being pushed by a growing number of legislators.

This applies to high-quality household appliances, for example. They must fulfill a wide range of requirements and make a decisive contribution to functionality, safety and therefore the satisfaction of appliance users. Foam seals must have many properties – for example, they must be waterproof when installed, withstand a high temperature range and be resistant to the chemical components of detergents and cleaning agents in the long term. If these devices are damaged in daily use, it should be possible to repair them.

Sonderhoff's polyurethane and silicone foam seals from the Henkel product portfolio create the prerequisites for ensuring that housings sealed against moisture and other environmental influences can be opened and reclosed for repair and maintenance purposes in a non-destructive manner. Thanks to its good resetting ability, the mixed-cell foam structure of the polyurethane seal generally recovers up to approx. 95% of its original height when the housing is opened. The great advantage is that the foam seal is reusable, and the sealing effect does not lose any of its quality for years, even if it is opened and reclosed several times.

Dishwasher dirt traps, for example, must be cleaned regularly to ensure that they function properly and the appliances last longer. Even if the dirt trap is frequently removed and reinstalled, the sealing effect remains consistent after years of continuous use thanks to the good resetting ability of the Sonderhoff Fermapor K31 foam seal.

The maintenance and repair of photovoltaic inverter housings is another example of an environmentally friendly seal that can be opened and resealed at any time. This makes the electronics inside easily accessible for regular maintenance, thus extending their service life.

However, a foam seal is also sustainable in itself because it has a lower density due to the foamed cell structure, and therefore uses less material compared to compact seals. Less material means a better CO<sub>2</sub>-balance and less weight of the sealed components. By using Sonderhoff FIPFG technology (Formed-In-Place Foam Gasket), the application process is very efficient. Only as much material as necessary is applied to the component to be sealed. The material is used 100 % and there is no punching waste as with conventional foam gaskets. In addition, the 2-component foam seals cure at room temperature and therefore do not require any energy or investment costs for a tempering oven.

The 2K reaction technology, in which the material components are mixed dynamically and homogeneously in the mixing head, uses resources very sustainably. In contrast to static mixers, no material is wasted. With static mixing, the mixing tube must be replaced regularly. Its disposal results in higher consumption because the hardened material remains in the mixing tube.

The Sonderhoff mixing head, on the other hand, can be used continuously and regular cleaning of the mixing chamber ensures long mixing head service life. This is done ecologically by means of high-pressure water rinsing, which, unlike solvent rinsing, does not use any chemicals. Solvents consist of petroleum derivatives, which are not biodegradable and, unlike water, cannot be returned to the natural cycle.

In addition, there are no investment and energy costs for an extraction system, which would normally have to be used for the evaporating or foul-smelling solvents and serves to protect the health of the operating personnel at the machine. With the newly developed Sonderhoff rinsing water recycling system, the tap water used for cleaning the mixing chamber is used several times and cleaned in a multi-stage filtration process. This significantly reduces the consumption of fresh water.

Last but not least, the increasing digitalization of Sonderhoff systems also stands for sustainability. It means optimizing processes for the shortest possible downtimes and therefore efficient and sustainable production. For example, measuring sensors in the mixing head help to improve the quality of the foam seal. And they help with the predictive monitoring of wear parts and more efficient planning of maintenance work. In addition, increased online support for servicing the systems leads to less travel by service technicians and thus to lower CO<sub>2</sub>-emissions.

With the Sonderhoff system solution from Henkel, all these advantages for ecologically sustainable production are included. This is also demonstrated by the fact that our mixing and dosing systems document all consumption values and convert them into CO<sub>2</sub>-consumption.

## About Henkel

With its brands, innovations and technologies, Henkel holds leading market positions worldwide in the industrial and consumer businesses. The business unit Adhesive Technologies is the global leader in the market for adhesives, sealants and functional coatings. With Consumer Brands, the company holds leading positions especially in laundry & home care and hair in many markets and categories around the world. The company's three strongest brands are Loctite, Persil and Schwarzkopf. In fiscal 2024, Henkel reported sales of more than 21.6 billion euros and adjusted operating profit of around 3.1 billion euros. Henkel's preferred shares are listed in the German stock index DAX. Sustainability has a long tradition at Henkel, and the company has a clear sustainability strategy with specific targets. Henkel was founded in 1876 and today employs a diverse team of about 47,000 people worldwide – united by a strong corporate culture, shared values and a common purpose: "Pioneers at heart for the good of generations." More information at [www.henkel.de](http://www.henkel.de)

Photo material can be found on the Internet at [www.henkel.de/presse](http://www.henkel.de/presse)

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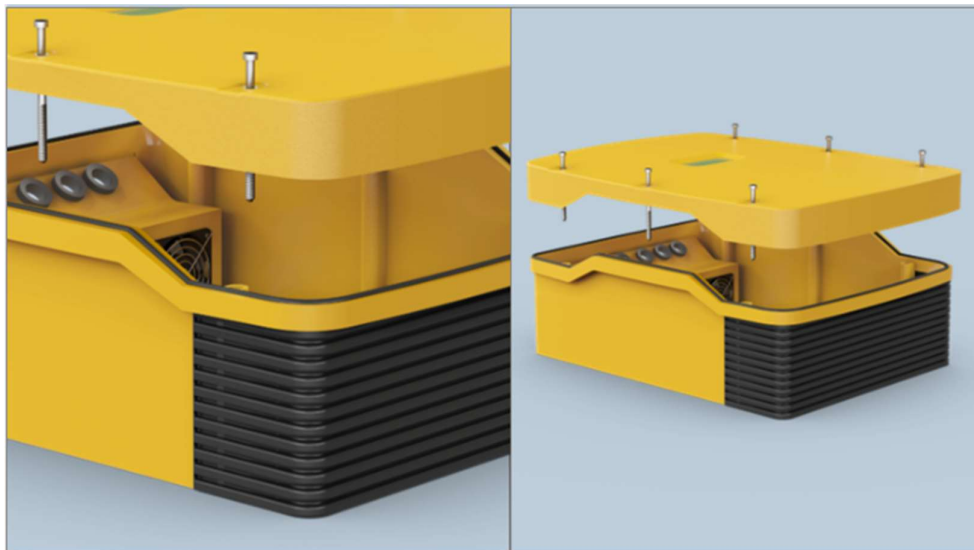
The following photo material is available:



A wide range of applications for 2K foam seals from Henkel



Sealing of the housing with PU sealing foam from below against the stainless-steel body of the dishwasher.



The good resetting ability of Sonderhoff Fermapor K31 foam gaskets ensures that PV inverter housings can be repeatedly opened and closed again for maintenance purposes.



Sensor-controlled 2/3-component mixing head MK 800 PRO with ecological high-pressure water rinsing for cleaning the mixing chamber from material build-up of reactive materials for sealing, bonding and potting



With the new Sonderhoff rinsing water recycling system the rinse/process water is purified in a multi-stage filtration process.