

Fast-Cure PU foam seal from Sonderhoff enhances production efficiency with short tack-free time

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Sonderhoff Chemicals is introducing its new Fast-Cure two-component polyurethane (PU) foam seal system that is tack-free in less than three minutes

The formed-in-place foam gasket (FIPFG) sealing technology from Sonderhoff is used for gasket application of automobile door modules or control cabinet panels, achieving tack-free times of less than three minutes at room temperature.

Therefore, industrial parts can be quickly processed in the subsequent production process without requiring intermediate cost-intensive storage. Additional investments for furnaces are also not needed in order to accelerate curing reaction of the foam seals on the parts.



During Sonderhoff's FIPFG process, the articulated-arm robot grabs the part to be foamed and moves it below the mixing head of the dispensing system

The fast reacting Fast-Cure foam seals of the Fermapor K31 FC product family have low water absorption, and even some of them meet the protection class IP69K in mutual combination with the sealed part, according to Sonderhoff Chemicals, a Sonderhoff Group company.

They can be easily installed and reset 96-98% under test conditions at 70°C, which is critical when a part, such as barrel lids and control cabinet doors, is frequently opened and closed in order to maintain a constantly high sealing effect in closed position.

For this FIPFG sealing application, Sonderhoff recommends its low-pressure mixing and dosing systems of the DM 40x series.

When applying a sealing to a control cabinet door, the linear robot moves the mixing head of the mixing and dosing system along the part contour. Paste-like material is freely applied via the mixing head dosing nozzle to the inside of the control cabinet door.

Once the sealing is applied, the foam expands to a size several times its volume and forms a soft foam seal with a width-height ratio of approx. 2:1. The ratio of width to height of a seal can basically be adjusted by means of the component material.

Regarding more complex 3D parts with inclinations, the automatic sealing application may also be performed by an articulated-arm robot, said Sonderhoff.