Hygienic Sealing Solutions

Food processing demands strict hygiene and cleanliness standards. It is also important to ensure that no substances can migrate from the materials that come into contact with food, which could lead to contamination of the product. One of the basic requirements for sealing solutions in accordance with "hygienic design" is construction with no dead space. This prevents the collection and settling of product residues and micro-organisms, for example in undercuts.

New seals from Freudenberg with a higher performance

Freudenberg has now added two more sealing solutions to its product family that fulfill food industry standards and are also resistant to CIP/SIP media.
The new "Hygienic Pressure Seal" has been designed specifically for high pressures in food technology, for example as a rod seal for use in valves or pumps. According to Freudenberg, it functionally resembles a traditional rod seal, but performs differently. In addition to sealing at higher pressures, it also features greatly reduced friction, a dead-space-free design, and a longer service life. To reduce friction, the seal uses "Quantum PTFE" developed by Freudenberg combined with a high-performance elastomer. The rubber ring is designed for long-lasting contact pressure against the PTFE element. Both elements form a planar and dead-space-free surface against the medium. If required, the seal can be produced in special customer-specific versions, for example with a steel ring for support, as a piston seal with one- or two-sided action or with an additional dust lip.
The second new development, called the "Hygienic Forseal", has also been adapted to requirements in the food industry in its design and materials. It includes an elastomer ring for optimum contact pressure. Other key features are planar surfaces, certifications conforming to the current food industry regulations, and the avoidance of undercuts. //

© Freudenberg Sealing Technologies

Freudenberg is expanding its range of hygienic sealing solutions with the addition of two new products.

For more information, please visit: www.fst.com

Metering System for Coating Base Paper

To enable stickers to be removed from their base paper, the base paper must be given a silicone coating. This involves a complex metering and mixing process. Dopag reports that it is now offering an efficient, safe solution that is specially tailored to this application and meets all requirements, as well as having high flexibility.
The metering system called "coatingmix" can be easily integrated into both automated and existing application systems and is suitable for all system types as well as for the highest coating speeds (from 200 m/min to > 1,000 m/min). The system enables the processing of silicone coatings with two to seven components. According to the company, different system configurations are available depending on the number of components desired.

© Dopag

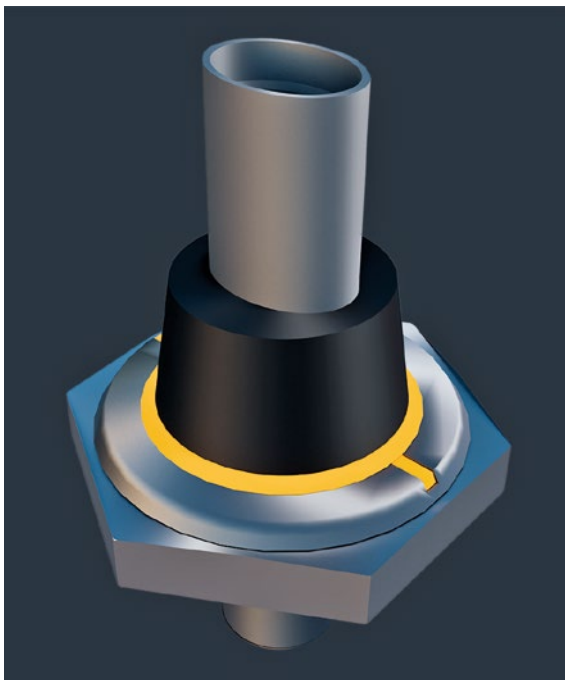
The "coatingmix" metering and mixing systems for the silicone coating of base paper

High metering precision

Dopag points out that the material is metered in a consistently high quality at all times and with a high level of metering precision (max. deviation <0.5 %). The material is supplied directly from original containers such as IBC containers or 200-liter drums. This speeds up the refilling process, saves materials, and ensures a neat workplace, the company says. Independent processing of the individual components ensures continuous supply throughout the production process. A color touch display also ensures ease of use and simple management of the formula variants stored. //

For further information, please visit: www.dopag.de

Encapsulating Compounds and Adhesives for High-Temperature Electronics Applications



© Otto-Chemie

Example of the use of adhesives and sealants that are resistant to high temperatures: connectors for vehicle electronic systems.

Otto, one of Europe's leading suppliers of adhesives, sealants, and encapsulating and coating materials, has developed several products under the brand name Novasil for bonding and sealing in electric motors and generators and for encapsulating transformers and the components that surround high-voltage fuses. These new products create permanent functional links between the components and, in some cases, protect them from the effects of high temperatures.

One of the newly launched products is Novasil S 804, a low-viscosity, highly flowable, single-component encapsulating compound which, according to Otto, offers long-term resistance to temperatures up to +250 °C. It is neutral-curing and adheres to a wide range of materials, which makes it suitable for a variety of different applications. In its final state it is soft and flexible.

Otto also supplies other products for high-temperature applications up to +250 °C. Novasil S 805, a neutral-curing, alkoxy-based, single-component, high-temperature silicone adhesive and sealant that cures at room temperature is ideal for sensitive electronic components because of its curing system. It also adheres to a broad spectrum of substrates without the use of a primer.

By contrast, Novasil S 806 is a neutral, condensation-curing, two-component, high-temperature silicone adhesive and sealant. According to the manufacturer, the almost odor-free material cures very quickly and with little shrinkage even when applied in a thick layer. //

For further information, please visit: www.otto-chemie.de

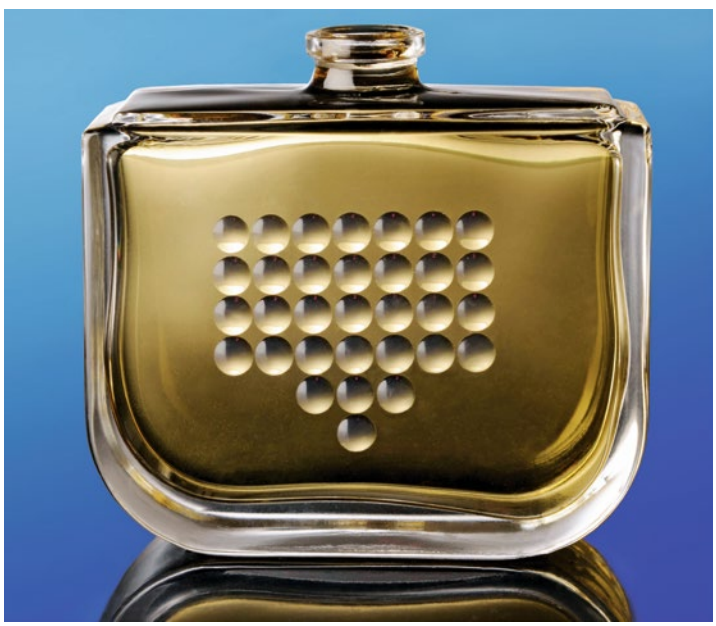
UV Adhesive for Decorations and Dome Coatings

Vitralit UC 6685 was formulated by Panacol specifically for decorations on plastic, glass, or metal. Due to its slight magnifying property, the transparent, one-component adhesive based on epoxy resin produces a high-quality image of the structures and illustrations underneath. According to Panacol, its viscosity makes it suitable for decorative applications on flacons and bottles or for dome coatings, an elegant protective coating for key rings, lapel pins, buttons, name tags, pens and jewelry, for example.

High cycle rate in the production process

Under UV light in the wavelength range from 320 nm to 390 nm, Vitralit UC 6685 can be cured in just a few seconds, enabling a high cycle rate in the production process, the company claims. For particularly fast and easy curing under UV light, the in-house UV and LED UV systems from Hönle can be used. After curing, the adhesive is very hard and scratch-resistant, it is characterized by its brilliant transparency, and does not yellow, the company says. //

For further information, please visit: www.panacol.de



© Panacol

The UV adhesive from Panacol is suitable for decorations on plastic, glass, or metal.

New Construction Adhesives from Bostik

© Bostik

Born2Bond – Bostik's new range of innovative technical adhesives

Bostik has launched Born2Bond – a new range of innovative technical adhesives designed for precision bonding in a variety of manufacturing sectors, from electronics to high-end luxury goods.

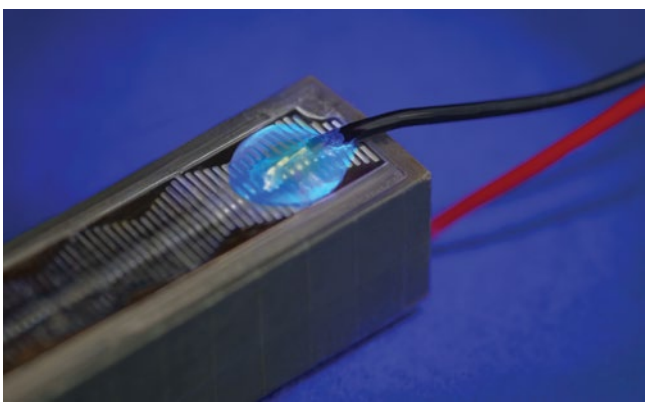
The range includes new low-odor formulations that provide a more pleasant production environment, as well as low 'blooming' solutions, which are particularly important for applications where aesthetics and surface quality are critical.

Polivio Goncalves, Bostik's Global Market Manager for Technical Adhesives, says that the instant adhesives, the first in the range, raise the bar for all-round performance: "Designers and manufacturers are faced with a critical challenge: On the one hand, the effects of blooming must be minimized, and on the other hand, a more adaptable and faster curing process is needed, which also complies with increasingly demanding environmental, health and safety regulations. With Born2Bond customers can improve efficiency, expand design options and optimize sustainability. This enables them to produce better, safer and more innovative products." //

Further information and contact: Sylvain Bartnicki, sylvain.bartnicki@bostik.com, www.bostik.com

New Dual-Curing Potting Compound

Panacol is expanding its portfolio of dual-curing acrylic adhesives with the introduction of Vitralit UD 8052 F. This material was developed for piezo actuators and sensors and possesses a particularly high tear resistance for bonding ceramics and plastics.



© Panacol

Fluorescence testing of a strand protected with Vitralit UD 8052 F on a piezo actuator

Vitralit UD 8052 F is a low viscosity, one-component UV curable adhesive. It is jettable, transparent, and fluoresces under UV light. Customized versions with different colors are available to facilitate improved process control. Its jet dispense capability makes high UPH (units per hour) values achievable, which is why the product is the perfect choice for consumer electronics applications.

This potting compound can be cured in just a few seconds with UV light (320-390 nm) or visible light (405 nm). The fluorescing adhesive allows in-line process control with short-wave light for maximum productivity. In areas that cannot be reached by light, it post cures with atmospheric moisture, and thus polymerizes reliably into a flexible potting and glob top compound.

Its high tear resistance after curing has been optimized for bonding ceramic components to plastics, compensating for the different expansion coefficients of the bonded materials. Thus Vitralit UD 8052 F is particularly suitable as a protective coating and for applications subject to tensile and compressive stresses. As a potting compound, it features a low halogen content, it is flexible and offers protection against corrosion and other environmental influences. //

Further information: www.panacol.com