

## **Protection for safety-critical solar components: 2K silicone potting compounds for PV electronics**

**Ostfildern-Kemnat, Germany. As energy supplies become increasingly decentralised, the individual components in solar photovoltaic systems – especially those critical to safety – have to meet ever more stringent reliability requirements. Live and electronic components for outdoor use, from power electronics to safety switches, junction boxes and connectors, must be permanently protected against heat, moisture, UV radiation and mechanical stress. Tailored two-component silicone potting compounds from WEVO-CHEMIE GmbH serve as a reliable all-round solution: RTV silicones are highly adaptable and can therefore be used in the production and long-term operation of demanding PV applications.**

PV optimisers, microinverters and safety switches contain compact power electronics and circuit boards that have to run reliably over the long term. The WEVOSIL 2210x series of silicone potting compounds, specially developed by Wevo for modern electronics, combines effective heat dissipation with high insulation properties and heat resistance. Their self-adhesive properties support reliable heat dissipation and reduce thermal stress on sensitive components. This is a significant factor in the cost-effective operation of solar PV systems.

These reactive RTV silicones have an extremely low Shore hardness and viscosity. As a result, they help to reduce tension, preventing crack formation and delamination on housings, circuit boards and solder joints – even when subject to major temperature changes or mechanical stresses such as vibration. Also, the flame retardant silicone potting compounds fulfil fire protection requirements according to UL 94 V-0 and can therefore be used in installations near and on buildings or in large-scale industrial systems.

### **Reliable sealing for junction boxes and connectors**

In PV junction boxes, DC and AC connectors as well as cable systems, silicone potting compounds from Wevo ensure reliable sealing against moisture and UV radiation. Integrated bypass diodes – essential for protecting shaded module sections – also benefit from the use of these 2K material systems.

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In addition to their hydrophobic properties and high dielectric strength, WEVOSIL products contribute to the longevity of these sensitive components through their ultra-soft, gel-like consistency. Even under extreme temperature changes, harsh weather conditions and high mechanical stresses, they provide reliable protection – including for components with complex geometries.

Low-viscosity, free-flowing two-component silicone potting compounds can be processed efficiently in automated potting processes using standard mixing and dispensing systems. Proven in practical applications, these materials are the ideal choice for series production of demanding components in state-of-the-art PV systems.

### ***Image description and source***

From power electronics to safety disconnects, Wevo's silicone potting compounds provide tailored protection for durable components (Image source: © anatoliy\_gleb – stock.adobe.com).

(Please note that the image may only be used in the context of this press release).

### ***About Wevo***

*WEVO-CHEMIE GmbH is an independent manufacturer in the field of customised potting and casting compounds as well as adhesives and sealants based on polyurethane, epoxy and silicone – primarily for use with electrical and electronic components. Wevo products protect sensitive components against chemicals, vibration, foreign matter, dust, humidity and high temperatures. We supply to more than 1,250 customers in over 50 countries from our headquarters near Stuttgart, Germany, and through companies in Asia, China and the USA.*

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