

Press Release

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K 2025 Plastics & Rubber Trade Fair **WACKER showcases high-tech silicones for future-bound technologies**

- Booth motto at this year's trade show: "Empowering megatrends with silicones"
- Product innovations in the fields of energy, electromobility, digitalization and sustainability
- Live production of molded parts for drinking bottles made from resource-saving liquid silicone rubber
- WACKER Silicones President Tom Koini: "Silicones are indispensable for the realization of groundbreaking technologies."

Munich – Energy transition, digitalization, electromobility, sustainability – these are topics that everyone's talking about. What kind of contribution do silicones make here? In answer to this question, WACKER will be showcasing numerous product innovations at this year's K 2025 plastics and rubber trade fair in Düsseldorf, Germany. Adopting the motto "Empowering megatrends with silicones", the Group will be using its 260-square-meter booth in Hall 6, Stand A10, to demonstrate why high-tech silicones are indispensable for many key technologies. In power-grid expansion, for example, addition-curing solid silicone rubber grades are increasingly being used to produce hollow-core insulators. In the field of electromobility, new ceramifying silicones improve battery safety in electric cars. Lightweight sensors composed of silicone laminates enable efficient and durable solutions in the fields of digitalization, medical technology and robotics.

“Whether it’s heat management in electric cars, composite insulators for overhead power lines or new sensors based on electroactive polymers: silicones are indispensable for the realization of such groundbreaking technologies”, emphasizes Tom Koini, President of WACKER’s Silicones division. “At this year’s plastics trade fair, we will be demonstrating the innovation potential of our products and the added value they offer the industry and our customers.”

A striking example of the growing importance of silicones is a composite insulator with a length of almost four meters that WACKER will be displaying at the K show. This exhibit essentially consists of a glass-fiber-reinforced plastic that is completely encased in an extrudable silicone. “As an insulation material, silicones play an important and sustainable role in the reliable operation of the power grid,” adds Koini. “Silicone rubber is resistant to weathering and UV radiation, has special dielectric properties and, unlike porcelain or glass, usually does not need to be cleaned due to its highly water-repellent surfaces. Silicones are therefore used in practically all areas of power engineering and transmission technology, especially in outdoor applications. This is a highly promising market for us, especially as demand is growing in view of global power-grid expansion.”

Electromobility and digitalization are further topics that will be highlighted by exhibits. For example, an EV battery model shows how silicones improve safety, fire protection and thermal management of energy storage components. As regards digitalization, visitors can test their responsiveness in an interactive video game using innovative silicone sensors. Another attraction at the WACKER booth is located in the sustainability section: the live production of molded parts made of liquid silicone rubber. During the trade fair, mouthpieces for drinking bottles from the Munich-based air up® company will be liquid injection molded with a mold designed by RICO. These demonstrations involve the processing of a non-postcure and biomethanol-based liquid silicone rubber from the ELASTOSIL® eco line which was developed for food-related applications and can be used without postcuring (daily from 10:00 a.m. to 6:00 p.m.).

Silicone-based GENIOPLAST® additives and processing aids for thermoplastics and engineering polymers, together with the poly(vinyl-acetate)-based VINNEX® additive system for the manufacture of bioplastics, will round out the company’s product portfolio at this year’s trade fair.

WACKER will be focusing on the following product innovations:

POWERSIL® 1900 A/B is a new high-consistency silicone rubber for the production of hollow-core insulators. The product is supplied as a 2K system and is suitable for manufacturing processes that involve extrusion and even spiral extrusion. In contrast to other production methods, this makes the manufacturing

of even large-scale insulators with variable diameters easier and more cost-effective. Thanks to their comparatively low weight, hollow-core insulators are much easier to install than rod insulators with a solid core. Weight savings may add up to 80 percent.

ELASTOSIL® R 531/60: Busbars are basically aluminum or copper rails that distribute the current between the battery cells and modules. As nominal battery voltages in electric vehicles are already in the range of 300 V to 900 V, the reliable insulation of busbars is a must. At K 2025, WACKER presents a new product that reliably insulates such components. ELASTOSIL® R 531/60 makes the sheathing of busbars cost-effective. In the event of fire, the product ceramifies and forms an electrically insulating protective layer that reliably prevents short circuits. ELASTOSIL® R 531/60 thus plays a vital role in passenger and fire safety of electric vehicles.

NEXIPAL® Sense silicone laminates take the production of flexible printed electronics to the next level. NEXIPAL® Sense laminates consist of highly stretchable silicone elastomers and electrically conductive silicone films that jointly work as a flexible and stretchable capacitor. Pressure or flex movements change the electrical capacitance of the component. Different voltage states thus provide precise sensor signals for applications in medical technology, robotics and sports.

At the Group's production site near Burghausen, Germany, serial production of sensor laminates has started. WACKER will be presenting itself for the first time ever at this year's K 2025 trade fair as a manufacturer of prefabricated components that are produced using a specially developed and fully automated roll-to-roll manufacturing process. This will position the company as the world's first supplier of customized flexible sensor laminates on an industrial production scale.

ELASTOSIL® eco LR 5003: In its sustainability zone, WACKER will present its "eco" grade ELASTOSIL® eco LR 5003. The non-postcure liquid silicone rubber is particularly suitable for the large-scale manufacture of products in the food industry and other sensitive areas. As far as their volatiles content is concerned, molded parts made from such silicones comply with the limits stipulated by the German Federal Institute for Risk Assessment (BfR) even without postcuring. They also meet the requirements of the U.S. Food and Drug Administration (FDA) for food-contact products. As a result, production of life-style products, drinking straws, baking tins, dough scrapers and other items is made very efficient.

Visit WACKER at K 2025 from October 8 to 15, in Hall 6, Booth A10.



POWERSIL® 1900 A/B, WACKER's new high-consistency silicone rubber, facilitates the low-cost, high precision production of composite hollow-core-insulators via spiral extrusion processes.
(Photo: WACKER)



Busbar insulated with ELASTOSIL® R 531/60. The bar is bent and fit into the battery architecture after sheathing. Thanks to its high elasticity and notch impact strength, the silicone can easily cope with this molding and bending process. (Photo: WACKER)



Water bottle designed by Munich-based company air up®. At K 2025, WACKER will demonstrate live how ELASTOSIL® eco LR 5003 can be used to manufacture mouthpieces (orange) for the bottle. (Photo: WACKER)



At the plastics and rubber trade show, WACKER will showcase special controllers to demonstrate how NEXIPAL® Sense electroactive silicone laminates work. Stretching or pressing the laminate changes the electrical capacitance of the component. Different voltage states thus provide sensor signals that are used to control an interactive computer game. The signals are extremely precise and can be used for demanding applications in medical technology, robotics or sports.
(Photo: WACKER)

Please note: This press release and the accompanying photo are available for download on the WACKER website (www.wacker.com) under Media: <http://www.wacker.com/pressreleases>

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The company in brief:

WACKER is a global company with state-of-the-art specialty chemical products found in countless everyday items, ranging from tile adhesives to computer chips. The company has a global network of 27 production sites, 21 technical competence centers and 46 sales offices. With around 16,600 employees, WACKER generated annual sales of around €5.7 billion in fiscal 2024.

WACKER operates through four business divisions. The Silicones and Polymers chemical divisions supply products (silicones, polymeric binders) for the automotive, construction, chemical, consumer goods and medical technology industries. Biosolutions, the life sciences division, specializes in bioengineered products such as biopharmaceuticals and food additives. Polysilicon produces hyperpure polysilicon for the semiconductor and photovoltaic industries.

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