WACKER

Press release

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JEC World 2026: WACKER presents new high-performance additives for composites

- Silicone-based modifiers improve the impact resistance of composites.
- Ideal for demanding composite, adhesive, and coating applications
- Also in the spotlight: silicone resin molding compound for applications up to 220°C.

Munich – The WACKER Group is presenting two new impact modifiers for composites at this year's international composites show JEC: GENIOPERL® W37 and GENIOPERL® W38. Both products represent a new generation of silicone-based additives that significantly improve the mechanical properties of thermosetting resins. Another focus product at the booth is POWERSIL® Resin 710. The silicone compound can be processed by compression molding, pressure gelation, or even injection molding technologies. Molded parts made from the product comply with thermal class R and are therefore able to withstand temperatures of up to 220°C for extended periods of time. JEC World takes place in Paris, France, from March 10 to 12.

Impact modifiers improve the shock and impact resistance of composite parts. This is also true for GENIOPERL® W37 and GENIOPERL® W38. Both products were developed to optimize the durability and performance of thermosetting resins such as epoxies and vinyl esters. Their tailor-made molecular structure based on a functional silicone building block promotes efficient phase separation and forms nanoscale elastomeric domains in the resin matrix. These increase the toughness of the matrix and prevent the composite from breaking under impact. GENIOPERL® W37 and GENIOPERL® W38 are therefore ideal for demanding

composite, adhesive, and coating applications where mechanical reliability, fatigue resistance, and low-temperature performance are required.

Sustainability was also taken into account when developing these modifiers. WACKER significantly reduced the cyclics content in both products. GENIOPERL® W37 and GENIOPERL® W38 disperse easily, are compatible with organic resin systems, and work reliably even at low dosages. For processing, simple stirrers can be used just as well as rotor-stator systems. Neither mechanical strength nor viscosity or heat resistance of the material is affected by this.

GENIOPERL® W37 improves the impact strength of thermosetting polymer systems, especially in low temperature ranges. The recommended additive amount in thermosets is between 2 and 8 percent by weight, based on the unfilled resin-hardener or polymer system. Due to the low amounts used, effects on the viscosity of the reactive resins and the glass transition temperatures of the cured products are negligible. Processing temperatures of at least 50 °C are recommended for optimum dispersion.

Like GENIOPERL® W37, GENIOPERL® W38 also improves the impact strength of thermosetting polymer systems at very low temperatures. Here too, the recommended additive dosage in thermosets is between 2 and 8 percent by weight. GENIOPERL® W38 also contains additives to reduce foaming, which is especially important for casting processes under reduced pressure.

POWERSIL® Resin 710 for heat-resistant molded parts

The industry increasingly has to face the challenge of manufacturing mechanically resilient components that can withstand temperatures above 200 °C over long periods. WACKER offers a material solution for this, called POWERSIL® Resin 710. Using the silicone resin compound, molded parts can be produced by compression molding, pressure gelation, or even injection molding. The material is suitable for thermal class R components, which are able to withstand temperatures of up to 220°C for extended periods of time.

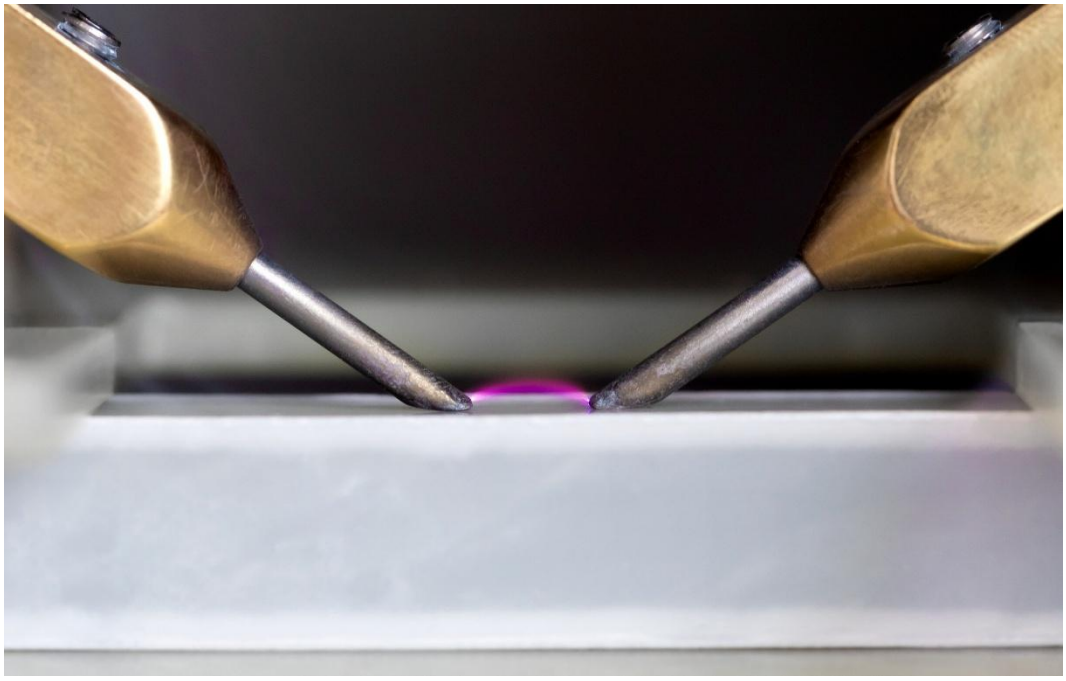
The new product is an alternative to high-temperature-resistant polymers such as PTFE (polytetrafluoroethylene) and PEEK (polyetheretherketone). Components manufactured using the new product are characterized by good electrical insulation properties, mechanical strength, and UV stability. POWERSIL® Resin 710 is solvent-free and not subject to labeling requirements. It comes with a low viscosity, which facilitates processing. The material is available either as a peroxide-curing version for the production of heat-resistant, ready-to-use parts or as a variant that cures with small quantities of a standard silicone catalyst.

Other highlights at JEC World 2026:

At the trade fair, WACKER is also presenting the following high-performance additives and binders for the composites industry:

- SILRES® silicone resins for improving the electrical insulation properties and flame retardancy of composite materials,
- HDK® pyrogenic silica for reliable rheology control,
- VINNAPAS® low-profile additives to minimize shrinkage and improve the dimensional stability of composites, and
- GENIOSIL® organofunctional silanes for adhesion promotion and for treating fillers and fibers.

Visit WACKER at JEC World 2026 at booth 5N142.



WACKER will present its POWERSIL® Resin 710 silicone molding compound at JEC World 2026. The product can be used to produce molded parts by compression molding, pressure gelation, or even injection molding that comply with thermal class R and can withstand temperatures of up to 220 °C. (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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