

Press Release

Thinner, lighter, stronger: ReViSalt revolutionizes the strengthening of glass, unlocking a new global potential for glass products

TGFS Technologiegründerfonds Sachsen invested a seven-figure Euro amount in ReViSalt GmbH. The Freiberg-based tech start-up specializes in the chemical strengthening of glass – a complex process that is currently used primarily to produce high-quality display glass. With the ReViSalt technologies, this process extends the next stage of development: it becomes more resource-efficient, less expensive, and faster. Overall, this will open up new design and application possibilities for glass products – in all industries.

Freiberg/Leipzig, June 7, 2023 – TGFS Technologiegründerfonds Sachsen announces its investment in ReViSalt GmbH. ReViSalt is a spin-off of the Institute for Glass and Glass Technology at TU Bergakademie Freiberg. The founder team has extensive and industry-proven know-how on the complex mechanisms involved in tempering and strengthening glass. This know-how is now being brought to market in the form of special regeneration materials and a new process approach for chemical strengthening. Both technologies are already being tested by well-known players in the glass industry. The TGFS funds and additional capital investments will be used to further expand the company and to build up production.

Chemically strengthened glass has several improved material properties compared to non-strengthened glass: it is more resistant to impact, bending and scratching and also has a higher thermal shock resistance. Conversely, this means that a glass product can be produced thinner and thus lighter with the same or higher strength values as a non-treated glass. This opens up new design and application possibilities, for example as a substitute for plastic, and also helps to reduce costs and emissions in production and transport.

Until now, however, chemical strengthening has been time-consuming and expensive. This is due in particular to the length of time required for the process and its complex mechanisms. For example, the glass products have to be kept in a special bath of molten salt for several hours for strengthening. However, this salt bath wears out after a few cycles and has to be replaced at great expense. For this reason, this process has so far been reserved for products in the high-price segment.

This is where ReViSalt comes in. With *SaltClean*, the company develops, produces, and sells application-specific, non-toxic and non-corrosive regeneration materials. These counteract salt bath degradation, and the salt needs to be replaced less frequently. The useable time of a salt bath can thus be doubled to quadrupled, depending on the application. "The regeneration of a salt bath saves resources, energy and costs – and not the least preserves the quality of the glass refined in this way. Our material is simply immersed in the salt bath like a tea bag and can then be removed completely. Another absolute bonus of *SaltClean* is that the used material can be completely recycled"; says Dr.-Ing. Martin Gross, Co-Managing Director, summarizing the properties.

In addition, ReViSalt has developed a new process approach for chemical strengthening. The new approach accelerates the strengthening process and shortens the cycle time many times over. Combined, the two technologies represent a new stage in the development of chemical strengthening.

“With our technologies, chemical strengthening will become economically viable for a wide range of applications. New products and markets will emerge. The new process for the rapid strengthening of glass is superior to the old process and the state of the art in many aspects”; says Michael Heidan, Co-Managing Director, describing the potential.

“ReViSalt is rethinking a fundamentally well-known process and bringing its products to market at a time when a recycle economy and resource conservation are the guiding principles of a new way of doing business”; said Sören Schuster, managing director of TGFS, describing the new investment. “The team impresses with its excellent technical and sales expertise. Within a short period of time, it has succeeded in establishing solid contacts and references as well as laying the foundations for their own production. We are very much looking forward to supporting the team in its further development”.

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Further Information

ReViSalt GmbH is a tech start-up from Freiberg, Germany, founded in 2021. The company specializes in the chemical strengthening and strengthening of glass in salt baths. Under the name *SaltClean*, ReViSalt develops and commercializes application-specific regeneration materials for salt baths. In addition, ReViSalt licenses a new process approach that significantly accelerates chemical strengthening. Consulting services related to the process and to salt bath analysis support glass finishing companies in optimizing their existing production or setting up new production facilities. ReViSalt is a spin-off of the Institute for Glass and Glass Technology at the TU Bergakademie Freiberg.

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TGFS Technologiegründerfonds Sachsen provides technology-oriented founders with investment capital for the seed and start-up phase. The fund was first launched in 2008 by the Free State of Saxony (including ERDF funding) and Saxon financial institutions and has since supported over 100 start-ups. In 2023, TGFS started its third fund generation. TGFS focuses on young, innovative, technology-oriented companies that belong to the ICT, semiconductor and microsystems technology, medical technology, life science, environmental and energy technology, and new media sectors and have their registered office or place of business in Saxony.

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