

PRESS RELEASE

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BakeTex wins Seifriz Transfer Prize 2026 in the "Craftsmanship + Science" category

The right choice of materials and a commitment to sustainability are enabling advances in baking technology that not only reduce the impact on the environment but also bring economic benefits to small craft businesses. A textile, PFAS-free, and reusable baking mat reduces waste, lowers energy consumption, and simplifies operational processes in areas that matter most to bakers every day. The team behind the BakeTex research project has been awarded this year's Seifriz Transfer Prize and has been invited to present the project at the special show "Innovation Wins" at the International Craft Fair in Munich from March 4 to 8, 2026.

The award recognizes outstanding transfer achievements from research to operational practice and underscores the importance of practical cooperation between science and craftsmanship. The prize goes to the BakeTex project team from research and craftsmanship with the companies Fickenschers Backhaus GmbH and Wilhelm Zuleeg GmbH. BakeTex is coordinated by the Fraunhofer Institute for Silicate Research with its Application Center for Textile Fiber Ceramics (TFK) in Münchberg and its Center for High-Temperature Lightweight Construction (HTL) in Bayreuth. The BakeTex team set out with the goal of developing a textile, reusable alternative to conventional baking foils. Prof. Dr. Frank Ficker from the Fraunhofer TFK Application Center sums up the success in a few words: "The textile baking sheet, with the material and process expertise of Fraunhofer ISC, is a contemporary, resource-saving product that is characterized by its low weight, high flexibility, and great potential for energy savings."

Environmentally friendly alternative to coated baking foils

Many bakeries have traditionally used non-stick coated baking paper or PFAS-containing foils. The use of PFAS – the abbreviation stands for per- and polyfluoroalkyl substances – is increasingly viewed critically due to its material and energy consumption and its classification as a so-called "forever chemical" that accumulates in the environment. BakeTex addresses this issue by combining textile, PFAS-free materials with high temperature resistance, food safety, and durability. The production process and choice of materials are aimed at ensuring a long service life, conserving resources, and avoiding waste. The baking mat developed is washable, very durable, and reusable many times over, thus making an important contribution to waste reduction.

"The leno weave has proven to be particularly suitable for the weave structure. Its characteristic grid structure makes the textile not only light but also air-permeable,"

Contact

Marie-Luise Righi | Fraunhofer Institute for Silicate Research ISC | Phone +49 931 4100-0 |
Neunerplatz 2 | 97082 Würzburg | www.isc.fraunhofer.de | marie-luise.righi@isc.fraunhofer.de |

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explains Silke Grosch from the Fraunhofer TFK Application Center. "In addition, the fabric does not warp when washed due to the fixation of the threads and remains dimensionally stable over a long period of time." Finally, a full-surface silicone coating ensures that baked goods do not stick to the mat. This eliminates the need for both the baking paper and the flour coating that were previously necessary, which is also an advantage in terms of reduced flour dust exposure. In addition, its low weight enables faster heating of the baking chamber, which has a positive effect on energy consumption during the baking process. The lower weight also offers practical advantages in terms of handling and transport. The textile baking mat can even be folded for space-saving storage. To ensure that the rolls come out of the oven just as crispy and brown as they would on a standard baking sheet, all you need to do is adjust the baking program.

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Craftsmanship benefits from innovation

The successful transfer of technology between craftsmanship and science shows how traditional baking meets modern materials and textile research, and how practical research can provide sustainable impetus for small and medium-sized enterprises. Andreas Fickenschers, managing director of Fickenschers Backhaus GmbH, emphasizes: "Innovation is not the opposite of tradition, but its consistent further development." This idea reflects the close cooperation between craftsmanship and science and illustrates how new solutions from research can create practical benefits for craftsmanship. BakeTex also offers added value for the craft sector in the context of Industry 4.0 and digitalization: in the future, RFID/QR code-supported production data and individual branding with BakeTex are conceivable.

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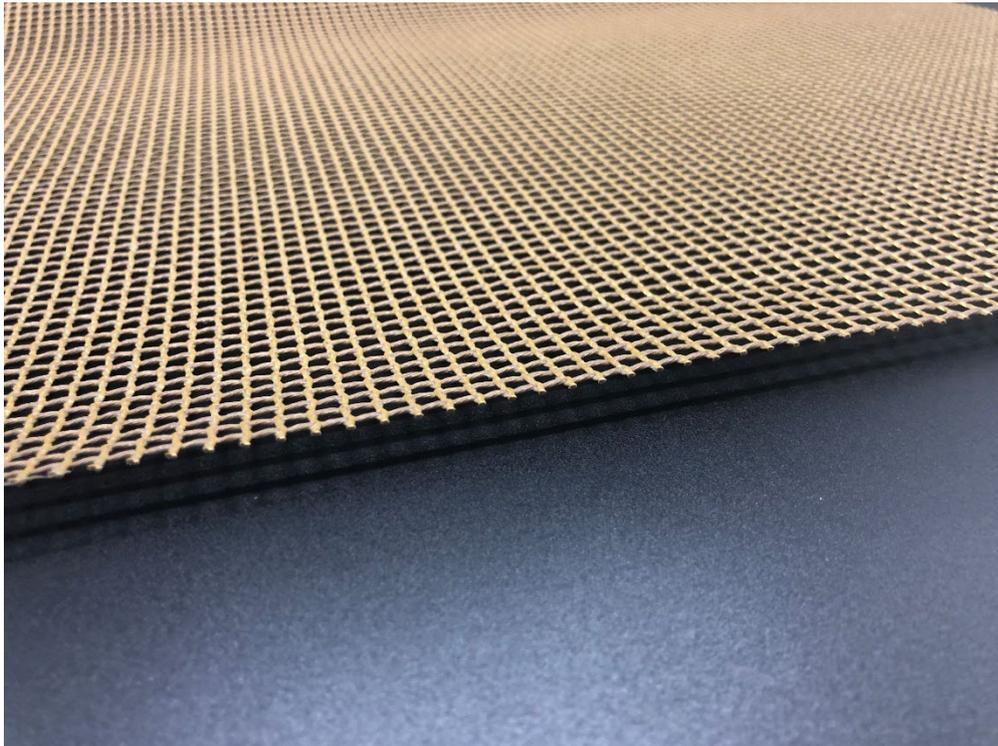
Dr. Carolin Sitzmann
Fraunhofer ISC / HTL Center
carolin.sitzmann@isc.fraunhofer.de

Material knowledge is crucial for sustainable product innovations. The **Fraunhofer Institute for Silicate Research ISC**, based in Würzburg, focuses on chemical materials research and offers solutions for sustainable materials, manufacturing, and processing. It is part of the **Fraunhofer Society**, a leading global organization for application-oriented research. With its focus on key technologies relevant to the future and the application of its findings in business and industry, it plays a central role in the innovation process. Founded in 1949, the organization currently operates 76 institutes and research facilities in Germany.

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Resource-saving and flexible BakeTex baking mat for professional use in bakeries – air-permeable grid structure thanks to leno weave. © Fraunhofer ISC / Application Center for Textile Fiber Ceramics Münchberg

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