

PRESS RELEASE

PRESS RELEASEDecember 4, 2024 || Page 1 | 3

Closing the loop on plastics: Conference on the mechanical recycling of plastics on the 26th and 27th of March 2025 in Darmstadt, Germany

The mechanical recycling of plastics faces several challenges, both technical and regulatory. From a technical point of view, there are questions about the availability of recyclates, ways to improve the quality and evaluation of recyclates, and its long-term properties in demanding applications. From a regulatory perspective, there is a need to comply with and develop regulations and guidelines, increase recycling rates, and promote recycling technologies. These challenges require innovative approaches and close cooperation between industry, research, and politics. The 7th "Forum Plastic Recyclates" will address these issues, in context of mechanical plastics recycling, and has established itself as an important industry meeting platform with a high degree of practical relevance. The conference program and online registration are now available.

Industry meeting and networking platform

The symposium, which will be held in English, offers participants the opportunity to exchange ideas in an international setting and brings together plastics producers, processors, recyclers, and users.

In addition to an overview of the current regulatory and market situation in Germany and Europe, the presentations at the conference will focus on the possibilities of optimizing the quality of recycled plastics through appropriate sorting and the use of additives for both, thermoplastics, and biopolymers. In the context of these considerations at material level, the advantages of offline and online analysis for assessing material quality and monitoring processes will be also discussed. Particular attention will be paid to the possibilities of data-driven approaches to material and process optimization, based on machine learning algorithms and artificial intelligence.

Examples of the successful use of recycled plastics in different applications

As in previous years, one focus will be on the successful use of plastic recyclates in different applications in the packaging, waste-management, consumer goods and automotive sectors, as well as approaches and challenges in the numerical simulation of recyclates in the context of component development.

Editorial office

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In addition to the technical content, the event is an established platform for sharing expertise and offers excellent opportunities developing new and existing networks.

PRESS RELEASEDecember 4, 2024 || Page 2 | 3

This year, companies will have the opportunity to increase their visibility through sponsorship or by displaying their products in a small exhibition area. For further details please visit:

<https://www.kunststoffrezyklate.de/en/sponsoringmoeglichkeiten-2025.html>

The 7th Forum Plastic Recyclates will take place at the Welcome Hotel in Darmstadt. The hotel is centrally located, has an underground parking garage and is easily accessible by public transport.

Exclusive additional format: Fraunhofer #LBFDeepDive on March 25, 2025

The one-day event #LBFDeepDive is a day full of expertise and discussions on the ageing mechanism of plastics, throughout their life cycle.

Participants will learn how environmental influences affect material properties and what challenges this poses for plastics recycling. They will meet experts from Fraunhofer LBF, exchange ideas, learn about innovative solutions to improve recyclability and material quality, and can discuss their questions on this topic with various experts.

Bridging science and business

Fraunhofer LBF plays a leading role in the research landscape, particularly in the field of plastic recyclates. As an application-oriented research institute, Fraunhofer LBF forms the interface between science and industry and is the ideal partner for the joint development of industry-oriented solutions.

Program and registration:

https://www.kunststoffrezyklate.de/en/program-2025.html?utm_source=pi-FPR-25-en-programm-en

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PRESS RELEASE

December 4, 2024 || Page 3 | 3

The seventh "Forum Plastic Recyclates" focuses on practical application examples from a wide range of industries. Graphic: Fraunhofer LBF.

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The **Fraunhofer Institute for Structural Durability and System Reliability LBF** in Darmstadt has stood for the safety and reliability of lightweight structures since 1938. With its expertise in the fields of structural durability, system reliability, vibration technology and polymer technology, the institute today offers solutions for three important cross-cutting topics of the future: lightweight system design, functional integration and cyber-physical mechanical engineering systems. The focus is on solutions for social challenges such as resource efficiency and emission reduction as well as future mobility, such as electromobility and autonomous, networked driving. Clients come from sectors such as vehicle construction, aviation, mechanical and plant engineering, energy technology, electrical engineering, medical technology and the chemical industry. They benefit from the proven expertise of around 400 employees and state-of-the-art technology in more than 17,900 square meters of laboratory and testing space. www.lbf.fraunhofer.de

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