
nova-Institut GmbH (www.nova-institute.eu)

PRESS RELEASE

The Updated Poster on Biodegradable Polymers in Various Environments has been Released

As part of the PerPlacsBio project, nova-Institute has updated its popular poster on the biodegradability of polymers in different environments. The updated version reflects current standards, certifications and the latest scientific findings. The poster can be used to assess biodegradable alternatives for use in agriculture and forestry, and it is now available in German for the first time.

Hürth, 27 May 2026: The nova-Institute has published an updated version of its popular poster, 'Biodegradable Polymers in Various Environments'. This updated version provides a more detailed and comprehensive overview of the biodegradability of polymers in different environments according to various standards. This practical reference tool remains invaluable for industry professionals, policymakers, and researchers working on sustainable plastics and end-of-life solutions in various environments.

The new version introduces several significant updates that reflect the latest scientific and regulatory developments. Notably, PBSA, PBS and PBAT are now classified as having 'proven biodegradability' in soil, marine and freshwater environments, and in home composting for PBS. This acknowledges advances in material-specific data and testing.

The 2026 update also expands and clarifies the standards landscape. Additional references have been included, such as ISO 17088 (industrial compostability), ISO 23517 (soil biodegradability) and NF T 51-800 (home composting), alongside corrections to the descriptions of EN 17033, ISO 23517, and the available marine biodegradation standards and certifications. These updates improve alignment with current certification schemes and international testing frameworks.

Further refinements have been made to enhance the scientific accuracy and usability of the poster:

- A new explanatory footnote clarifies the meaning of 'biodegradability not proven'.
- Revised content on slower-biodegrading polymers, including updated insights on PLA degradation in marine environments.
- Integration of the PerPlacsBio project logo to reflect project continuity.
- Availability of the poster in German, increasing accessibility for a broader audience.

The poster summarises the biodegradation behaviour of materials in various environments, including marine, freshwater, soil and composting, based on established standards and certification schemes. It

emphasises that biodegradability is highly dependent on environmental conditions and material-specific properties, and must be verified through standardised testing.

With this update, nova-Institute and its partners continue their efforts to provide clear, science-based guidance on when biodegradability is a meaningful and appropriate end-of-life option. These partners include nova-Institute experts from Germany, as well as leading experts from Normec OWS (Belgium), Hydra Marine Science (Italy/Germany), IKT Stuttgart (Germany), Wageningen University & Research (the Netherlands), DIN CERTCO (Germany), and TÜV AUSTRIA (Austria/Belgium).

The University of Münster, the University of Applied Forest Sciences Rottenburg, and nova-Institute launched the two-year PerPlacsBio project at the end of 2025. Funded by the Agency for Renewable Resources (FNR) under the Sustainable Renewable Resources programme, the project aims to explore the prospects for bio-based and biodegradable plastics in agriculture and forestry.

The poster is available to download in English in both PNG and PDF formats here:

<https://renewable-carbon.eu/publications/product/biodegradable-polymers-in-various-environments-according-to-established-standards-and-certification-schemes-graphic-pdf-current-version/> (PDF)

<https://renewable-carbon.eu/publications/product/biodegradable-polymers-in-various-environments-according-to-established-standards-and-certification-schemes-graphic-png-current-version/> (PNG)

The poster is available to download in German in both PNG and PDF formats here:

<https://renewable-carbon.eu/publications/product/biologisch-abbaubare-polymere-in-versch-umgebungen-gemas-anerkannten-normen-und-zertifizierungssystemen-graphik-pdf-aktuelle-version/> (PDF)

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Since the mid-1990s, the nova-Institute has been dedicated to sustainability and today focuses primarily on renewable carbon cycles. As an independent research institute, it supports companies – particularly from the chemical, plastics, and materials industries – in the use of renewable carbon derived from biomass, direct CO₂ utilisation (CCU), and recycling.

With a multidisciplinary team of scientists, the nova-Institute participates in international innovation projects and provides science-based management consulting. The institute follows a holistic approach: its experts analyse which technologies and raw materials are suitable for specific products, in which markets their application is feasible, which regulatory frameworks apply, how sustainable the solutions are, and how they can be successfully positioned in the market.

Based on these analyses, the team develops tailored strategies to support the transformation from fossil to renewable carbon. Around 50 experts from various disciplines work together to drive the defossilisation of industry – for a climate-neutral future.

More information: www.nova-institute.eu – www.renewable-carbon.eu

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