

Sustainable alternative

Röhm is developing thermoformable PLA films from renewable raw material

- **Films from renewable raw material reduce the carbon footprint of end products**
- **Thermoformable PLA films for a wide range of applications**
- **Transparent, high-gloss and approved for contact with food**
- **Film can be adapted to customer-specific applications**

Röhm, the provider of EUROPLEX®-brand special films, is now also developing plastic films using renewable raw materials. The new product is being developed under the provisional designation EUROPLEX® Film LJ 21123/123 and is a transparent, high-gloss and stable film based on polylactic acid (PLA). Unlike many other films based on PLA on the market, this film has not been biaxially stretched and can therefore be thermoformed.

As the raw material production generates significantly lower CO₂ emissions, films made from polylactic acid are more climate-friendly alternative to petroleum-based films. PLA films thus contribute to reducing the carbon footprint of the end product.

Sustainability is an integral part of Röhm's global business strategy, with the company targeting climate-neutral production by the year 2050. The focus is not only on the development and market launch of new, sustainable products and technologies, but also the decarbonization of raw materials. "We are taking responsibility for our climate, society and the limited natural resources," says Hans-Peter Hauck, Chief Operating Officer (COO) at Röhm.

Environmentally friendly alternative

EUROPLEX® Film LJ 21123/123 consists of certified, compostable PLA which meets the requirements for industrial composting as per the ASTM D6400 US standard and the EN 13432 European standard. If the PLA film is not disposed of correctly, its persistence is many times lower than that of petroleum-based films. Furthermore, PLA films do not release toxic materials upon decomposition.

Properties at a glance

EUROPLEX® Film LJ 21123/123 has a property profile that provides many opportunities:

- bio-based and industrially compostable
- can be thermoformed at 55°C
- highly transparent, light transmittance of over 92%
- high tensile strength and good flexibility
- can be stamped and cut
- can be printed on

Upon request, development samples of the film can be provided in thicknesses of 53 µm to 500 µm and widths of 200 mm. The datasheet on EUROPLEX® Film LJ 21123/123 with its technical specifications and approvals is also available upon request.

PLA special films for a wide range of applications

EUROPLEX® Film LJ 21123/123 has a wide range of properties which make it ideal for various interior applications, such as high-quality packaging for food and non-food items, as well as decorative films for Insert-Mold decoration processes, or printed products like graphics panels. "Our experience in film extrusion enables us to produce PLA films with high

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optical quality. We would be delighted to talk to interested parties about their specific requirement profile for their applications,” emphasizes Herbert Groothues, Head of Film and Extrusion Development.

Approved for food contact

The bio-based film is also suitable for food packaging – which is subject to particularly stringent regulations – as it meets the requirements for plastics with food contact in the EU (EU Regulation 10/2011), the USA (FDA 21 CFR) and China (GB 9685-2016). Possible applications include viewing windows on cardboard packaging or thermoformed packaging with high demands when it comes to an aesthetic, high-quality product presentation.

Raw material from certified sources

The raw material used to produce EUROPLEX® Film LJ 21123/123 is derived from non-genetically modified sugarcane. The supplier has implemented an environment management system as per ISO 14001:2015 and is certified according to Bonsucro. Bonsucro is an association of producers and processors of sugarcane who have agreed on globally recognized standards for social, ecological and economic sustainability.



EUROPLEX® Film LJ 21123/123 consists of a renewable raw material and can be shaped flexibly.

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About Röhm

With 3,500 employees and 14 production sites worldwide, Röhm is one of the leading manufacturers in the methacrylate business. The medium-sized company with branches in Germany, China, the USA, Mexico, and South Africa has more than 80 years of experience in methacrylate chemistry and a strong technology platform. Our best-known brands include PLEXIGLAS®, ACRYLITE®, EUROPLEX®, MERACRYL®, DEGALAN®, DEGAROUTE® and CYROLITE®.

Polymethyl methacrylate (PMMA) products from Röhm are sold on the European, Asian, African and Australian continent under the registered trademark PLEXIGLAS®, in the Americas under the registered trademark ACRYLITE®.

More information is available at www.roehm.com.