

WE MAKE BIOPLAST



BIOPLAST[®] 500

BIOPLAST 500 is a plasticizer-free, thermoplastic material that contains natural potato starch and other biologically sourced polymers. The biobased carbon share of the entire formulation exceeds 50%. BIOPLAST 500 is suitable for blown film extrusion applications, specially light films with a thickness of approx. 15 µm. Waste bags made of BIOPLAST 500 are fully biodegradable and compostable according to EN 13432, and have achieved the “OK compost HOME” certification awarded by TÜV AUSTRIA Belgium. The absence of plasticizer allows the material to be easily processed to manufacture stable products of consistent quality.

PROPERTIES

Parameter	Target value	Unit Test	Method
Pellet size	3.0	mm	Caliper gauge
Density	1.28	g/cm ³	EN ISO 1183-1/A
Bulk density	800	kg/m ³	EN ISO 60
MFR (190°C, 5 kg)	10.5	g/10 min	EN ISO 1133
Moisture content	< 0.3	weight-%	BIOTEC test directive

PROCESSING

BIOPLAST 500 was designed for use in blown film extrusion.

For further processing information, please refer to our specific guidelines.

MECHANICAL PROPERTIES OF BLOWN FILM* MADE OF BIOPLAST 500

Parameter	Typical value	Unit	Test Method
Tensile strength MD	25	MPa	EN ISO 527-3
Tensile strength TD	23	MPa	EN ISO 527-3
Elongation at break MD	250	%	EN ISO 527-3
Elongation at break TD	450	%	EN ISO 527-3

(*blow-up ratio: 3.5; die gap: 1.05 mm; die diameter: 60 mm; thickness: 25 µm)

Films made of BIOPLAST 500

- contain a share of renewable raw materials >50%
- are recyclable
- are printable by flexographic and offset printing, pretreatment is recommended
- have a soft touch
- can be coloured with masterbatches
- are sealable (hot, RF, ultra sonic)
- can be drawn down to 15 µm

General applications

- short life packaging
- ultra-light single-use bags (e.g. fruit and vegetable bags)
- single-use bags (e.g. biowaste bags, bin-liners)
- multi-use bags (e.g. carrier bags, loop-handle bags)
- agricultural films

Sustainability

BIOPLAST 500 has a biobased carbon share of 47% according to ASTM D6866 and ISO 16620-2.

End of life options

BIOPLAST 500 is compostable and can be recycled.

Compostability

Products made of BIOPLAST 500 are completely biodegradable and, depending on their thickness, compostable. The material is certified by TÜV AUSTRIA Belgium according to EN 13432 awarding the “OK compost INDUSTRIAL” logo and the “seedling” logo.



- OK compost HOME
- >50% biobased
- Plasticizer-free
- GMO-free

For flexible applications

Home composting

BIOPLAST 500 is certified and registered by TÜV AUSTRIA Belgium awarding the “OK compost HOME” logo. The material is home compostable according to the French norm NF T 51-800. Therefore products made of BIOPLAST 500, depending on their thickness, can be disposed of in a well maintained domestic composting unit.

Organic waste collection

As a result of their compostability and renewable raw material content, fruit and vegetable bags and bin-liners produced from BIOPLAST 500 are suitable for the collection of organic waste. Additionally bags made of BIOPLAST 500 offer a high carbon share and are therefore suitable in markets where a high carbon share is demanded.

Delivery format

BIOPLAST 500 is available in telescope-octabins (with PE-inliner), bags or bulk on request. Pallet: CP3 or CP9 (114 cm x 114 cm).

Shelf life, storage and handling

The granules should be stored under dry and ambient conditions in the closed PE-inliner bag. During storage the products can take up humidity. Once a bag or an octabin is opened, the material should be processed without delay. Following these recommendations it is advisable to use the material within 6 months after delivery.

Safety data

BIOPLAST 500 is not a dangerous product as defined by regulation (EC) No (272/2008) [CLP] and not subject to transport regulations. General safety, protection and hygiene rules for the handling of the molten granule, as for any other polymer, should be observed. For details please refer to the Material Safety Data Sheet (MSDS).

QUALITY, ENVIRONMENTAL AND ENERGY MANAGEMENT

Quality, Environmental and Energy Management is central component of BIOTEC's corporate strategy which has been successfully implemented and merged into an Integrated Management System.

The certifications by TÜV Rheinland according to DIN EN ISO 9001:2015, DIN EN ISO 14001:2015 and DIN EN ISO 50001:2018 respectively cover all processes and services provided by BIOTEC.

Regular audits and training courses for our employees contribute to maintaining the high-quality standard as well as the constant striving for improvement of the Quality, Environmental and Energy Management System.

Disclaimer

This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with our General Conditions of Sale and Delivery.



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