





WE MAKE BIOPLAST



 **BIOPLAST**<sup>®</sup>  
500

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



# 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 Vinçotte. 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 <sup>3</sup>	EN ISO 1183-1/A
Bulk density	800	kg/m <sup>3</sup>	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 “Configuration and Operating 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

- consist mainly of renewable raw materials
- are home compostable (“OK Compost HOME” certificate awarded by Vinçotte)
- are biodegradable according to EN 13432
- 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 below 15 µm

## General Applications

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

## Sustainability

BIOPLAST 500 contains 58% of renewable raw material and has a biobased carbon share of >50% according to ASTM D6866.

## End of life options

BIOPLAST 500 is compostable (home and industrial) and recyclable. Although it is biodegradable, the material should only be disposed of in a controlled waste management environment.

## Compostability

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



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#### Home composting

BIOPLAST 500 is certified and registered by Vinçotte awarding the “OK Compost HOME” logo. Therefore products made of BIOPLAST 500 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, refuse bags and bin-liners produced from BIOPLAST 500 are suitable for the collection of organic waste in those markets, that require a majority of biobased carbon in all materials entering the waste collection system.

#### 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 granule should be stored cool, shaded and dry in the closed PE-inliner bag. During storage BIOPLAST 500 can take up humidity. Therefore, once an Octabin or a bag 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 directive 67/548/EEC 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).

#### 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.

## QUALITY AND ENVIRONMENTAL MANAGEMENT

Quality and Environmental Management is a central component of BIOTEC's corporate strategy.

BIOTEC has successfully implemented a Quality and Environmental Management System and is certified by TÜV Rheinland according to DIN EN ISO 9001:2008 and DIN EN ISO 14001:2004. The certifications include all services which BIOTEC provides in connection with the development, production and marketing of BIOPLAST material.

Regular audits and training courses for the employees contribute to maintaining the high quality standard as well as the continuous improvement of the Quality and Environmental Management System.



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