

WE MAKE BIOPLAST




BIOTEC®
BIOPLASTICS FOR A BETTER LIFE

BIOPLAST[®] 400

BIOPLAST 400 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 40%. BIOPLAST 400 is suitable for blown-film extrusion applications, particularly ultra-light weight films with a thickness of approx. 10 µm. Bags e.g. for fruit and vegetables and films like mailing films made of BIOPLAST 400 are fully biodegradable and compostable according to EN 13432, and have achieved the “OK compost HOME” certification awarded by TÜV AUSTRIA Belgium.

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)	1.74	g/10 min	EN ISO 1133
Moisture content	< 0.3	weight-%	BIOTEC test directive

PROCESSING

BIOPLAST 400 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 400

Parameter	Typical value	Unit	Test Method
Tensile strength MD	25	MPa	EN ISO 527-3
Tensile strength TD	24	MPa	EN ISO 527-3
Elongation at break MD	350	%	EN ISO 527-3
Elongation at break TD	550	%	EN ISO 527-3

(*blow-up ratio: 3.5; die gap: 1.05 mm; die diameter: 60 mm; thickness: 20 µm)

Films made of BIOPLAST 400

- contain a share of renewable raw materials >40%
- 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 10 µm

General applications

- 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)
- technical films (e.g. mailing bags, automatic packaging)

Sustainability

BIOPLAST 400 has a biobased carbon share of 47% according to ASTM D6866 and ISO 16620-2.

End of life options

BIOPLAST 400 is compostable and can be recycled.

Compostability

Products made of BIOPLAST 400 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
- >40% biobased
- Plasticizer-free
- GMO-free

For flexible applications

Home composting

BIOPLAST 400 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 400, 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 400 are suitable for the collection of organic waste. Additionally bags made of BIOPLAST 400 offer a high carbon share and are therefore suitable in markets where a high carbon share is demanded.

Delivery format

BIOPLAST 400 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 400 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.

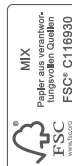
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