



Technical Information

Test product - **BIOPLAST® GF 106/02**

1. Description

BIOPLAST GF 106/02 is BIOTEC's trademark for a completely new, plasticizer-free thermoplastic material. BIOPLAST GF 106/02 is extremely suitable for blown film extrusion, sheet film extrusion and injection molding of completely biodegradable products. The complete biodegradability and other functional properties enable the converter to advance in production areas, which could not be reached with traditional thermoplastic materials.

2. Properties

Shape: cylindrical granule

Characteristic	Guide Value	Unit	Test method
Particle diameter	1.5 – 2.5	mm	caliper rule
Melt Density	1.1 – 1.3	g/cm ³	DIN 53735
Density	1.2 – 1.3	g/cm ³	DIN 53479/A
Bulk density	740 – 800	kg/m ³	DIN 53466
MFI (190°C, 5 kg)	1 – 6	g/10 min.	DIN 53735
Water content	< 0.5	%	test procedure BIOTEC
Vicat Softening Temperature (VST A/50)	approx. 65	°C	DIN 53460

No substances produced with genetically modified organisms are used for this granule (GMO-free).

3. Processing

BIOPLAST GF 106/02 can be processed excellently on blown film extrusion lines, sheet film extrusion lines and injection molding lines.

For processing information please refer to our data sheets "Configuration and Operating Conditions of Blown Film Extrusion Lines, Sheet Film Extrusion Lines resp. Injection Molding Lines with BIOPLAST GF 106/02".

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.



4. Properties of blown film made of BIOPLAST GF 106/02

Characteristic	Guide Value	Unit	Test method
Gauges of films	≥ 10	µm	DIN 53353
Tensile Strength - MD (23°C, 50 % r.h.)	20 – 35	N/mm ²	DIN 53455
Tensile Strength - TD (23°C, 50 % r.h.)	20 – 35	N/mm ²	DIN 53455
Elongation at Break – MD	500 – 900	%	DIN 53455
Elongation at Break - TD	500 – 900	%	DIN 53455
Water Vapor Permeability (38 µm)	90 - 110	g/(m ² d)	DIN 53122 part 1

5. Features of the film

- Film made of BIOPLAST GF 106/02
- is completely biodegradable
 - is resistant to oil, grease, gasoline and water
 - is printable by flexographic and offset printing without pretreatment
 - has a soft hand
 - can be colored with master batches

6. General Applications

- short life biodegradable products for single use disposable fast food packaging
- thermoformed products
- injection molded products
- agricultural products
- packaging
- carrier bags, refuse bags

7. Food Packaging

Depending on duration and kind of application, products made of BIOPLAST GF 106/02 can be used for contact with food. All raw materials used for BIOPLAST GF 106/02 are listed in directive 2002/72/EC. They are of good technical quality, mostly even of food grade. For potential specific migration limits we would like to inform you with respect to your special application.

For further information regarding food packaging made from BIOPLAST material, please refer to our Product Information "Suitability of BIOPLAST Products for Food Contact".

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8. Compostability

Products made of BIOPLAST GF 106/02 are completely biodegradable and, depending on their thickness, compostable. The material is registered by DIN CERTCO (No. 7W0062) and AIB-Vinçotte (No. O 05-074-A) to be biodegradable and non-toxic for the composting process (according to EN 13432).

For further information regarding biodegradability and compostability of BIOPLAST materials, please refer to our Product Information "Biodegradability and Compostability".

9. Packaging

BIOPLAST GF 106/02 is delivered in Big Bags with PE-Inliner bags on CP3 pallet. Packaging labeling includes product designation and lot number.

10. Delivery Format

BIOPLAST GF 106/02 is produced in the form of a granule and is available in Big Bags. Unit pallet net weight is 1.000 kg.

11. Storage and Handling

During storage, BIOPLAST GF 106/02 can take up humidity. The yield of water uptake depends on the temperature and relative humidity during storage. Therefore, the granule should be stored cool and dry in the closed PE-Inliner bag.

12. Shelf Life

If stored correctly, the shelf life until processing is max. 6 months after delivery.

13. Safety data

BIOPLAST GF 106/02 is no dangerous product in the sense of directive 67/548/EEC and not subject to transport regulations. The product is not expected to create a decomposition of individual components at room temperature. General safety, protection and hygiene rules for the handling of the molten granule, as for any other polymer, should be observed. Also please note, that spilled granule can make floors slippery. For details please refer to the Material Safety Data Sheet.

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