WE MAKE BIOPLAST

ARROW GREENTECH LTD.

BIOTEC®
BIOPLASTICS FOR A BETTER LIFE

BIOPLAST® 900

BIOPLAST 900 is a plasticizer-free thermoplastic material that contains a high portion of biologically sourced raw materials. The biobased carbon share of the entire formulation achieves 69%. BIOPLAST 900 is easy-flowing and therefore particularly suitable for processing by injection moulding to produce items that are completely biodegradable and applicable for hot filling (e.g. beverages). The material can also be converted by sheet film extrusion. The absence of plasticizer allows the material to be easily processed to stable products of consistent quality. BIOPLAST 900 has an excellent shelf life but will biodegrade readily in an industrial composting environment.

PROPERTIES

Parameter	Target value	Unit Test	Method
Pellet size	3.0	mm	Caliper gauge
Density	1.35	g/cm³	EN ISO 1183-1/A
Bulk density	850	kg/m³	EN ISO 60
MFR (190°C, 2.16 kg)	8	g/10 min	EN ISO 1133
Moisture content	< 0.2	weight-%	BIOTEC test directive

PROCESSING

BIOPLAST 900 was designed for use in injection moulding, but also can be processed with conventional equipment for sheet film extrusion (thermoforming) and blown film extrusion.

MECHANICAL PROPERTIES OF INJECTION MOULDED PRODUCTS* MADE OF BIOPLAST 900

Parameter	Typical value	Unit	Test Method
Tensile strength	31	MPa	EN ISO 527-3
Flexural strength	53	MPa	EN ISO 178
Elongation at break	4	%	EN ISO 527-3
Young's modulus	2.3	GPa	EN ISO 527-3
Flexural modulus	2.4	GPa	EN ISO 178
Charpy impact resistance at	+23°C		
unnotched	75	kJ/m²	EN ISO 179
notched	5	kJ/m²	EN ISO 179

(*norm bar according to EN ISO 527-2 [1B])

Products made of BIOPLAST 900

- are applicable for hot filling (e.g. beverages)
- are biodegradable according to EN 13432
- are recyclable
- are printable by flexographic and offset printing without pretreatment
- can be coloured with masterbatches
- are sealable (hot, RF, ultra sonic)

General Applications

- injection moulded articles (e.g. cutlery, medical devices, clips, cups for hot and cold drinks)
- semi-finished products
- thermoformed products (e.g. food trays)
- blend partner in combination with other BIOPLAST materials (e.g. BIOPLAST GF 106/02)

Sustainability

BIOPLAST 900 contains 75% of renewable raw material and has a biobased carbon share of 69% according to ASTM D6866.

End of life options

BIOPLAST 900 is compostable, recyclable and can be incinerated.

Compostability

Products made of BIOPLAST 900 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" logo.

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

Although it is biodegradable, the material should only be disposed of in a controlled waste management environment.

WE MAKE BIOPLAST
THE POWER OF NATURE

- High heat resistant
- 69% biobased
- Fit for food packaging

Food Packaging
BIOPLAST 900 is mainly designed for packaging dry and/or fatty food. All raw materials used for BIOPLAST 900 are listed in directive EU 10/2011. For additional food packaging options and further information, please refer to our product information "Suitability of BIOPLAST Products for Food Contact".

Delivery Format
BIOPLAST 900 is available in Telescope-Octabins (with PE-inliner) or bags. 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 900 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 900 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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