BioDoloMer®

Beyond plastics

Product Information

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Biodolomer® T

Biodegradable compound for Thermoforming

® = Biodolomer is a registered trademark of GAIA

Product Description

Biodolomer® T is a biodegradable biomaterial developed for the thermoforming process.

Bidolomer® T is based on renewable resources.

GAIA BioMaterials AB
Bunkagårdsgatan 13, 253 68 Helsingborg
Sweden
+46 (0)42 300 39 99
info@gaiabiomaterials.com

Biodolomer® T exhibits the following properties:

- High strength and stiffness
- High water vapor transmission rate (WVTR)
- High melt strength: MFI (190 °C, 2.16 kg): 2-3 g
- Good thermo stability up to 210 °C
- Good processability on conventional sheet extrusion lines
- Printable without corona treatment

Trials are always recommended to assess the quality of the final product.

Compostability and Biodegradability

Biodolomer® T fulfills the requirements of the existing standards for compostable and biodegradable polymers, because it can be degraded by microorganisms.
The biodegradation process in soil depends on the specific environment (climate, soil quality, population of microorganisms).

Food Regulatory Status

Biodolomer® T is one of the few compostable polymers, which complies in its composition with the European food stuff legislation for food contact, EU Directive 10 / 2011 / EC with amendment 2019/1138 and US food contact notification for the main components: e. g. FCN 475 and 907. Specific limitations and more details are given on request.

The converter or packer has to check the suitability of the article for the application.

Form Supplied and Storage

Biodolomer® T is supplied as lenticular pellets in big bags. Temperatures during transportation and storage may not exceed 60 °C at any time.
Storage time of unopened bags may not surpass 12 month at room temperature (23 °C).

Applications

Biodolomer® T has been developed for the conversion to extruded films from 0.3 - 8 mm thickness using a sheet extrusion process with subsequent thermoforming operation. Typical applications are packaging film for cups, trays, boards and other thermoformed containers or articles. In view of numerous factors influencing functionality and shelf life of Biodolomer® films and finished articles made thereof the production parameters have to be tested by the converters before utilization.

Basic Material Properties of Biodolomer® T

*** see Quality Control**

Property	Unit	Test Method	Biodolomer® T
Mass Density	g/cm³	ISO 1183	1.35 ~ 1.45
MFI 190 °C, 2.16 kg	g/10min	ISO 1133	3 - 4
Melting Point	°C	DSC	120
HDT B (0.45MPa)	°C	ISO 75-1/-2	70
Shrinkage	%	ISO 2577	0,5

Typical Material Properties of Biodolomer® T, 0.8 mm sheet

***not to be construed as specifications**

Property	Unit	Test Method	Biodolomer® T
Transmission	%	ASTM D 1003	Opaque
Tensile Modulus	MPa	ISO 527	3000 / 2,500
Tensile Strength	MPa	ISO 527	60 / 45
Ultimate Elongation	%	ISO 527	65 / 40
Ultimate Strength	MPa	ISO 527	30 / 20
Permeation rates:			
Oxygen	cm3 / (m2 · d · bar)	ASTM D 3985	28
Water vaport	g / (m2 · d)	ASTM F 1249	3,5

Note

The information submitted in this document is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance for a special purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. (September 2020).

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