

Bio dolomer

Biodegradable Polymers

Product Information

Version 1.3 Oktober 2016

Biodolomer® F

Product Description

Biodolomer® F is our biodegradable biomaterial containing renewable resources. It is basically a compound of a biodegradable aliphatic-aromatic copolyester, calcium carbonate and polylactic acid (PLA). Due to its outstanding mechanical strength Biodolomer® F offers a great down gauging potential needed for very thin film applications like T-shirt bags, organic waste bags, and carry bags etc.

Biodolomer® F already contains antiblocking and slip agents required for easy processing on film extrusion and film conversion equipment.

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Biodolomer® F exhibits the following properties:

- Translucent, semi-crystalline structure with DSC melting point in 110 -120 °C
- High melt strength
- Good thermostability
- Excellent processability on conventional blown film lines
- Down gauging to 10 µm possible, typical thicknesses: 20 -120 µm
- Good mechanical properties
- Good bag manufacturing process
- Wet strength (e. g. Organic waste bag applications)
- Nice white translucent color
- Excellent welding properties
- Ready to use grade
- Decor printable by flexo printing

Certification of Compostability and Biodegradability

Biodolomer® F fulfills the requirements of the existing standards for compostable and biodegradable polymers, because it can be degraded by microorganisms. Available Certificates:

Norm	EN 13432 (EU)	
Certification Body	Vinçotte	
Certification Name	SEEDLING	OK COMPOST HOME
Certification Number	7P2051	S455



The biodegradation process in soil depends on the specific environment (climate, soil quality, population of microorganisms).

Food Regulatory Status

Biodolomer® F 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 and US food contact notification for the main components: e. g. FCN 178, 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® F is supplied as lenticular pellets in 1 t big bags. Temperatures during transportation and storage may not exceed 70 °C at any time. Storage time of unopened bags may not surpass 12 month at room temperature (23 °C)..

Quality Control

Biodolomer® F is produced as a standard material in a continuous production process according to DIN EN ISO 9001 : 2008. The melt volume rate, MVR, at 190 °C, 5 kg, according to ISO 1133 has been defined as specified parameter for quality control. A certificate can be provided with each lot number upon request. Other data given in our literature are typical values, which are not part of our product specification for Biodolomer® F.

Applications

Biodolomer® F has been developed for the conversion to flexible films using a blown film process. 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. Additionally sufficient field tests are required to ensure the right functionality of the articles made from Biodolomer® F.

Typical Basic Material Properties of Biodolomer® F

* see Quality Control

Property	Unit	Test Method	Biodolomer® F
Mass Density	g/cm ³	ISO 1183	1.28
Bulk Density	kg / m ³	DIN EN ISO 60	800
Melt Volume Rate MVR 190 °C, 5 kg	ml/10 min.	ISO 1133	4.0 - 7.0
Melting Points	°C	DSC	110 - 120

Typical Properties of Biodolomer® Blown Film, 18 µm

*not to be construed as specifications



Property	Unit	Test Method	Biodolomer® F
Tensile Modulus MD/TD	MPa	ISO 527	260 /130
Tensile Strength MD/TD	MPa	ISO 527	25 / 25
Ultimate Elongation MD/TD	%	ISO 527	480 / 570
Dart Drop	g	ASTM D 1709-04 Method A	220
Tear Resistance	mN	DIN EN ISO 6383-2	1686 / 420

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. (July 2017)