

Bio dolomer

Biodegradable Polymers

Product Information

Version 1.5 March 2018

Biodolomer® F40

Product Description

Biodolomer® F40 is a biodegradable biomaterial.
Contains at least 40 % renewable resources.

It is basically a compound of a biodegradable aliphatic-aromatic copolyester (PBAT), polylactic acid (PLA) and calcium carbonate.

Biodolomer® F40 offers a great down gauging potential needed for very thin film applications like T-shirt bags, organic waste bags, and carry bags etc.

Biodolomer® F40 already contains antiblocking and slip agents required for easy processing on film extrusion and film conversion equipment.

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Biodolomer® F40 exhibits the following properties:

- Processing temperature between 150 - 170 Celsius
- Excellent process-ability on conventional blown film lines
- Down gauging to 10 µm possible, typical thicknesses: 15 -120 µm
- Good mechanical properties
- Good bag manufacturing process
- No odor
- Wet strength (e. g. Organic waste bag applications)
- Nice white translucent color
- Excellent welding properties
- Ready to use grade
- Decor printable by flexo printing. No corona treatment needed.
- Contains at least 40 % renewable resources

Certification of Compostability and Biodegradability

Biodolomer® F40 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® F40 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 2016/1416 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® F40 is supplied as lenticular pellets in 1 t 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® F40 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® F40.

Typical Basic Material Properties of Biodolomer® F40

* see Quality Control

Property	Unit	Test Method	Biodolomer® F40
Mass Density	g/cm ³	ISO 1183	1.5
Bulk Density	kg / m ³	DIN EN ISO 60	800
MFI190 °C, 2.16 kg	g/10min.	ISO 1133	2
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® F40
Tensile Modulus MD/TD	MPa	ISO 527	280 /150
Tensile Strength MD/TD	MPa	ISO 527	30 / 30
Ultimate Elongation MD/TD	%	ISO 527	350 / 470
Dart Drop	g	ASTM D 1709-04 Method A	170
Tear Resistance	mN	DIN EN ISO 6383-2	1800 / 620

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.

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