

ecovio[®] 50 FS22B2

**Biodegradable compound for compostable film with
a bio-based content of >50 %**

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Product Description

ecovio[®] 50 FS22B2 is a biodegradable film product partly based on renewable resources. It is basically a compound of our biodegradable, aliphatic-aromatic biobased copolyester ecoflex[®]. ecovio[®] 50 FS22B2 has a bio-based content of 50 %. Due to its outstanding mechanical strength ecovio[®] 50 FS22B2 offers a great down gauging potential needed for very thin film applications like T-shirt, organic waste and fruit & vegetable bags etc. ecovio[®] 50 FS22B2 already contains slip and antiblocking agents.

Our new ecovio® 50 FS22B2 exhibits the following key properties:

- High melt strength
- Thermostability up to 170 °C
- Excellent processability on conventional PE-LD blown film lines
- Good mechanical properties
- Down gauging to 15 µm possible, typical thicknesses: 20-120 µm
- Good processability on bag making equipment
- Nice white translucent color
- Excellent welding properties
- Printable in 8 colors by flexo printing
- Bio-based content: 50 %

ecovio® 50 FS22B2 exhibits excellent compatibility to ecoflex®, polylactic acid and other biodegradable polymers. The processing of ecovio® 50 FS22B2 on extrusion lines depends on the formulation, the extrusion technology and processing conditions. Trials are always recommended to assess the quality of the final product.

The following processing temperatures for blown film extrusion are recommended:

Feed section: 30 °C
 Barrel zones: 140 °C-170 °C
 Adapter and Die: 160-170 °C
 Melt temperature: 160-170 °C

According to our experience pre-drying of ecovio® 50 FS22B2 is not required if the granules are taken from an unopened bag.

Certification of Compostability and Biobased Content

ecovio® 50 FS22B2 is a biodegradable & compostable compound. Available certificates:



Certification body	DIN Certco	TÜV Austria	
		Norm / Certification scheme	OK Compost Home
	EN 13432	OK Compost (EN 13432)	OK Compost Home
Certification Number	7W0264	TA8011702347	not listed

Food Contact Status

Food contact certificates for ecoflex® and ecovio® grades including information about specific limitations and details concerning the food contact status for different regions can be obtained upon request via a local BASF representative or by contacting plastics.safety@basf.com. The suitability of the article for the application concerned must be ensured in each case by the person who places any finished food contact article on the market.

Form Supplied and Storage

ecovio® 50 FS22B2 is supplied as cylindrical 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).

Quality Control

ecovio® 50 FS22B2 is produced as a standard material in a continuous production process according to DIN EN ISO 9001. The melt volume rate, MVR, at 190 °C, 5.0 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. The ecovio granules have to be pre-dried (6 hours at 70 °C) before MVR measurement in order to obtain accurate values. Other data given in our literature are typical values, which are not part of our product specification for ecovio® 50 FS22B2.

Applications

ecovio® 50 FS22B2 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 ecovio® films and finished articles made thereof the production parameters have to be tested by the converters before utilisation. Additionally, sufficient field tests are required to ensure the right functionality of the articles made from ecovio® 50 FS22B2.

We supply technical service information concerning the blown film process with ecovio® 50 FS22B2 on demand.

Typical Basic Material Properties of ecovio® 50 FS22B2

*see Quality Control

Property	Unit	Test Method	ecovio® 50 FS22B2
Mass Density	g/cm ³	ISO 1183	1.35
Melt Volume Rate MVR 190°C, 5 kg*	ml/10 min.	ISO 1133	2.0-7.5
Melting Points	°C	DSC	105-115
	°C	DSC	140-155

Typical Properties* of ecovio® 50 FS22B2 Blown Film, 25 µm

*not to be construed as specifications

Property	Unit	Test Method	ecovio® 50 FS22B2
Tensile Modulus MD/TD	MPa	ISO 527	600/260
Tensile Strength MD/TD	MPa	ISO 527	28/26
Ultimate Elongation MD/TD	%	ISO 527	290/500
Dart Drop	g	ASTM D 1709-04 Method A	220
Tear Propagation MD/TD	mN	DIN EN ISO 6383-2	2000/500

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. (March 2024)