

ecovio[®] T2206

Biodegradable polyester for compostable film & sheet with 60 % of renewable resources

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Product Description

ecovio[®] T2206 is our new biodegradable film product containing renewable resources. It is basically a compound of our biodegradable copolyester ecoflex[®] F Blend and polylactic acid (PLA). Because of the PLA content ecovio[®] T2206 consists of 60 % of renewable resources. ecovio[®] T2206 has been developed for the conversion of extruded films using a sheet extrusion line with a subsequent orientation or thermoforming process. Typical applications are oriented monofilaments and twine for e.g. agro applications. ecovio[®] T2206 is also suitable for thermoforming applications like cups, trays and other thermoformed containers. It already contains some antiblocking agents for improved processing on extrusion and subsequent processing equipment.

PLA is the continuous phase in the structure of ecovio® T2206 transferring the beneficial film properties of ecoflex® F Blend into the new product:

Our new ecovio® T2206 exhibits the following properties:

- Translucent, semi-crystalline structure with DSC melting points for ecoflex® and PLA
- High strength and stiffness as well as high failure energy (dart drop)
- High, but controllable water vapour transmission rate (WVTR)
- Good thermo stability
- Good processability on conventional sheet extrusion lines, e.g. for PP, PS
- Printable in 8 colours by flexo printing

Because of the moisture sensitivity of PLA at melt temperatures in the order of 170 – 180 °C we have to assure a maximum moisture content of below 800 ppm prior to sheet extrusion.

The processing of ecovio® T2206 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. ecoflex® masterbatches have to be used as required to tailor the slip and antiblock properties of the final product as well as the barrier to water vapour. Detailed information concerning our ecoflex® masterbatches will be sent upon request.

Certification of Compostability and Biodegradability

ecovio® T2206 is a biodegradable & compostable compound. Available certificates:



Certification body	DIN Certco	TÜV Austria
Norm/Certification scheme	EN 13432	OK Compost (EN 13432)
Certification Number	7W0085	TA8011702346

Food Contact Regulation

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® T2206 is supplied as pearl-shaped pellets in 1.0t big bags. Temperatures during transportation and storage may not exceed 60 °C at any time. Storage time in an unopened bag may not surpass 12 month at room temperature (23 °C).

Quality Control

ecovio® T2206 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 kg, according to ISO 1133 has been defined as specified parameter for quality control. A certificate of the MVR value 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 ecovio® T2206.

Applications

ecovio® T2206 has been developed for the conversion to extruded films using a sheet extrusion line with subsequent orientation or thermoforming 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® T2206.

We supply technical service information concerning the extrusion process with ecovio® T2206 on demand.

Typical Basic Material Properties of ecovio® T2206

*see Quality Control

Property	Unit	Test Method	ecovio® T2206
Mass Density	g/cm ³	ISO 1183	1.24 - 1.26
Melt Flow Rate MFR 200 °C, 5 kg	g/10 min.	ISO 1133	-
Melt Volume Rate MVR 190 °C, 5 kg*	ml/10 min.	ISO 1133	2.5 - 7.5
Melting Points	°C	DSC	110 - 120
	°C	DSC	140 - 155
Vicat VST A/50	°C	ISO 306	71
Transmission	%	ASTM D 1003	Opaque

Typical Properties* of ecovio® T2206 Blown Film, 30 µm

*not to be construed as specifications

Property	Unit	Test Method	ecovio® T2206
Tensile Modulus MD/TD	MPa	ISO 527	1900*
Tensile Strength MD/TD	MPa	ISO 527	40*
Ultimate strength	MPa	ISO 527	24*
Ultimate Elongation MD/TD	%	ISO 527	170*
Charpy	kJ/m ²	ISO 179-1/1eA	26
Charpy	kJ/m ²	ISO 179-1/1eU	no break

*Shouldered test specimen with 4 mm thickness according to DIN EN ISO 527-2

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. (January 2023)