



Biodegradable Polymers

Product Information

Version 1.0

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G-PMF/SB

ecovio® TA1241

**Biodegradable heat stable and partly biobased compound
for compostable films or sheets**

® = ecovio and ecoflex are registered trademarks of BASF SE.

Product Description

ecovio® TA1241 is a biodegradable and heat resistant film product containing renewable resources. It is basically a compound of our biodegradable copolyester ecoflex® and polylactic acid (PLA). A certain type of ecoflex® grade transfers the beneficial properties of ecoflex® into this heat resistant product.

For more information please visit us at www.ecovio.com

 **BASF**
We create chemistry

ecovio® TA1241 exhibits the following properties:

- Semi-crystalline structure with DSC melting points for ecoflex®
- High strength and stiffness
- High, but controllable water vapor transmission rate (WVTR)
- Good thermo stability up to 210 °C in processing
- Good processability on conventional sheet extrusion lines, e.g. for PP
- Printable
- Sealable
- Easy to colour

Because of the moisture sensitivity of ecovio® TA1241 at melt temperatures we have to assure a maximum moisture content of below 1,000 ppm prior to sheet extrusion.

The processing of ecovio® TA1241 on sheet extrusion lines depends on the extrusion technology and processing conditions. Trials are always recommended to assess the quality of the final product. ecovio® TA1241 fulfills the requirements of the European standard DIN EN 13432 for compostable and biodegradable polymers up to 0.447 mm sheet thickness, because it can be degraded by microorganisms. Depending on the final application higher wall thicknesses are possible, but have to be tested on the final product. The biodegradation process in soil depends on the specific environment (climate, soil quality, population of microorganisms).

Certification of Compostability and Biodegradability

ecovio® TA1241 is a biodegradable & compostable compound. Available Certificates:



Norm	EN 13432 (EU)		ASTM D 6400 (USA)
Certification Body	DIN Certco	Vinçotte	BPI
Certification Number	7W0261	016-1902-A	pending

Food Regulatory Status

ecovio® TA1241 is one of the few compostable polymers, which complies in its composition with the European food stuff legislation for food contact as well as with the regulations of the US food law status is given in our specific certificates which are send on request via a local BASF representative or Plastic Safety (plastics.safety@basf.com). The converter or packer has to check the suitability of the article for the application.

Form Supplied and Storage

ecovio® TA1241 is supplied as pearl-shaped pellets in 1,000 kg 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® TA1241 is produced as a standard material in a continuous production process according to DIN EN ISO 9001 : 2000. The melt volume rate, MVR, at 190 °C, 2.16 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® TA1241.

Applications

ecovio® TA1241 has been developed for the conversion to extruded films using a sheet extrusion process with subsequent thermoforming operation. Typical applications are packaging film for cups, trays and other thermoformed containers or articles. In view of numerous factors influencing functionality and shelf life of ecovio® films and finished articles made thereof 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 ecovio® TA1241. We supply technical service information concerning the sheet extrusion process with ecovio® TA1241 on demand.

Typical Basic Material Properties of ecovio® TA1241

*see Quality Control

Property	Unit	Test Method	ecovio® TA1241
Mass density	g/cm ³	ISO 1183	1,494
Melt volume rate MVR 190 °C, 2.16 kg*	ml/10 min	ISO 1133	2.0
Melting Point	°C	DSC	100-110
HDT B (0.45 MPa)	°C	ISO 75-1/2	94
Tensile modulus	MPa	ISO 527	2700
Tensile strength	MPa	ISO 527	37
Ultimate strength	MPa	ISO 527	34
Ultimate elongation	MPa	ISO 527	13

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. (May 2017)