

biophan

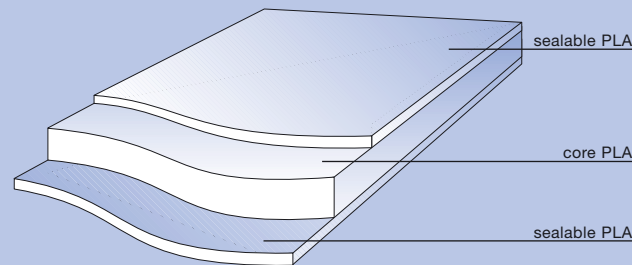
biophan

PLA

- Transparent film
- High surface gloss
- Manufactured from annually renewable resources
- Fully compostable



TREOFAN BIOPHAN PLA



Biophan, the film manufactured from polylactic acid (PLA) has excellent quality features such as exceptional transparency and high surface gloss. The film is made of annually renewable primary product starch and completely biodegradable into carbon dioxide and water.

PRODUCT FEATURES

Optical properties

- high transparency
- exceptional surface gloss

Environmental features

- made of annually renewable resources
- completely biodegradable into water and CO₂

Physical properties

- high stiffness
- resistant to oil, fat and alcohol
- low water vapour barrier

Converting features

- twistable with excellent deadfold
- both sides sealable
- low sealing temperature and high seal strength
- thermoformable
- printable
- adhesive or thermolaminatable to paper/board/Biophan

Biophan[®]
powered by nature

PRINTING GUIDELINES

Biophan can be converted by flexographic and rotogravure processes. A high, constant wettability is given by the film itself, even without corona treatment. This high wettability will not decrease with time.

Printing on Biophan is recommended with nitrocellulose-based inks. Water-based inks are also suitable.

Biophan is resistant to alcohol and water but is affected by ethyl-acetate. Biophan shows swelling if it comes into contact with ethyl-acetate short term and will dissolve if it is in longer contact.

Because of the heat sensibility of Biophan, the drying temperature needs to be reduced to the lowest possible temperature. Opposed to this, the air flow to dry the inks needs to be increased.

TRANSPORT & STORAGE

Biophan PLA is largely unaffected by climate influences but should not be exposed to extreme temperatures or high humidity. Transport and storage at temperatures higher than 40°C or high humidity is not recommended.

Certified according to

DIN EN ISO 9001:2000

Compliance with industrial health and safety standards:

The Treofan range of Biophan films do not present any significant danger to health and safety in the workplace, provided they are used for the intended purpose in accordance with conventional practices and that health and safety regulations are observed. Relevant guidelines can be found in our safety information.

TECHNICAL DATA

Properties	Biophan PLA 121				Unit	Measuring method
Nominal thickness	20	25	30	40	µm	
Unit weight	25	31.2	37.5	50	g/m ²	ISO 4591
Average yield	40	32.1	26.7	20	m ² /kg	
Heat seal range	80 – 130				°C	
Heat seal strength	> 2				N/15 mm	Trespaphan 4.42
Wettability	≥ 37				mN/m	DIN ISO 8296
Gloss	≥ 100				%	DIN 67530
Haze	≤ 3				%	ASTM D 1003
WVTR (±10 %)						
23 °C/85 % r.H.	85	70	55	45	g/m ² · d	ASTM F 1249
38 °C/90 % r.H.	175	162	150	120	g/m ² · d	ASTM F 1249
OTR (±10%)						
23 °C/50 % r.H.	720	610	500	380	cm ³ /m ² · d	DIN 53380-3

AVAILABILITY

Reel length (m):

Biophan film	Standard length	4 times standard
121 20 µm	3800	15200
121 25 µm	3000	12000
121 30 µm	2500	10000
121 40 µm	1900	7600

Maximum reel o.d. (mm):

Core diameter	Standard length	4 times standard
77 mm	approx. 330	approx. 640
152 mm	approx. 358	approx. 655

SUSTAINABILITY

Biophan film is made of PLA (polylactic acid), an environmental friendly thermoplastic polymer made from the annually renewable resources corn starch. Biophan is fully biodegradable. Under industrial composting condition (58 °C) it can be converted into CO₂ and H₂O in 45 days. PLA passes the proposed European composting certification standards ASTM D5338 at 58 °C.

The Biophan films are certified by DIN CERTCO, that means that the Treofan Group and its customers are entitled to mark the films with the Compostability Logo: registry no. 7P0043.

Food safety and environmental statement

The Biophan PLA food contact films are non-toxic and may be used in direct contact with all types of foodstuff. Their use for wrapping food for human consumption is permitted unconditionally, and they present no health or safety hazards when used for this purpose.

The films comply with the appropriate food-contact regulations of the EU Member States, the USA and most other countries throughout the world in which specific food-contact regulations are in force.

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