


PRODUCT PORTFOLIO



Taghleef Industries

NATÍVIA[®]
BIO - BASED FILMS

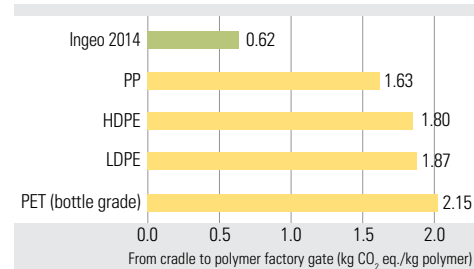


NATIVIA® is a new generation of bio-based biaxially oriented flexible packaging films made of  PLA polylactic acid from NatureWorks. Thanks to the bio-based content and the lower consumption of energy, PLA delivers a lower carbon footprint and additional end of life options compared to most oil-based plastics. All NATIVIA® films have achieved the four-star OK Biobased certificate from TÜV AUSTRIA and are approved for industrial composting according to EN 13432 standard by DIN CERTCO.



These logos can be used for final products which are made of this intermediate and certified as final products at DIN CERTCO or TÜV AUSTRIA.

Carbon Footprint of Ingeo PLA vs. Standard Plastics*



*Source: www.natureworksllc.com

PRODUCT PORTFOLIO EUROPE



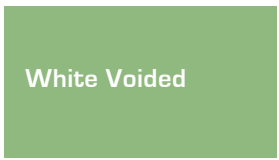
Transparent

NTSS



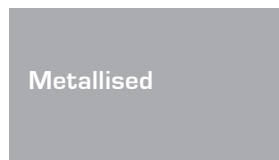
Matt

D817 **NEW**



White Voided

NELD



Metallised

NZSS, NZLD

What does bioplastic mean?

BIO-BASED

The material is wholly or partially derived from biomass. Biomass used for bioplastics is usually corn, sugar cane or cellulose.

BIO-DEGRADABLE

Biodegradability is an inherent property of certain polymers. Biodegradation is a chemical process in which materials, with the help of microorganisms, are metabolised to water, carbon dioxide, and biomass.

The drivers behind bioplastics are:



Green Culture



Sustainability
Programs



New Bioplastic
Production
Capabilities



Framework
Conditions

Physical and Mechanical Properties

- High Mechanical Strength
- Very Strong Seal
- Excellent Transparency and Gloss
- Consistent surface energy (37mN/m) for good printability
- High Moisture Transmission Rate
- Effective barrier against mineral oil saturated hydrocarbons (MOSH) and Mineral oil aromatic hydrocarbons (MOAH)
- Good Aroma Barrier
- Good anti-fog properties
- Paper-like Dead Fold
- Excellent Twist
- Alcohol, Fat and Oil Resistance
- Breathable with lower OTR but higher WVTR than coex BOPP

VERY GOOD
DEAD FOLD & TWIST



Segments and Applications



Fresh produce



Candies



Bakery, Coffee & Tea



Labels



Dairy



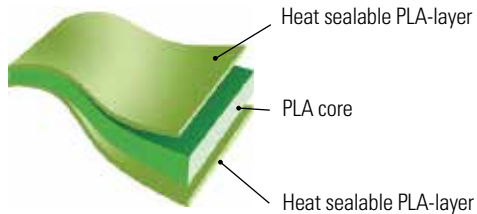
Tapes



Envelopes and wrapping

NTSS

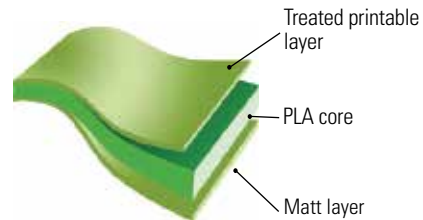
BoPLA transparent film, both sides heat sealable, biodegradable.



Nominal Thickness (μm)	Unit Weight (g/m ²)	Yield (m ² /kg)	Sealing temperature (°C)	WVTR (g/m ² /d)	O ₂ TR (cm ³ /m ² /d)
20	24.8	40.3	85	440	1100
25	31.0	32.3		330	900
30	37.2	26.9		270	730
35	43.4	23.0		230	630
40	49.6	20.2		200	540
50	62.0	16.1		170	430

D817 NEW

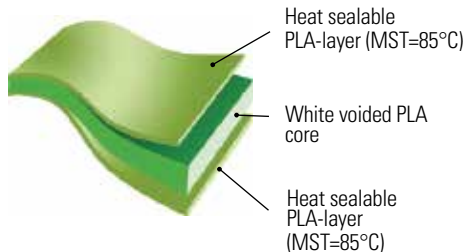
BoPLA matt film, biodegradable



Nominal Thickness (μm)	Unit Weight (g/m ²)	Yield (m ² /kg)	Sealing temperature (°C)
20	24.8	40.3	-

NELD

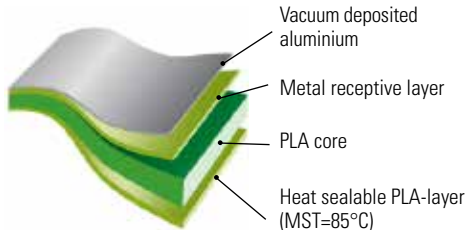
BoPLA white voided film, both sides heat sealable, biodegradable.



Nominal Thickness (µm)	Unit Weight (g/m ²)	Yield (m ² /kg)	Sealing temperature (°C)
30	28.8	34.7	85

NZSS

BoPLA metallised film, heat sealable, biodegradable.

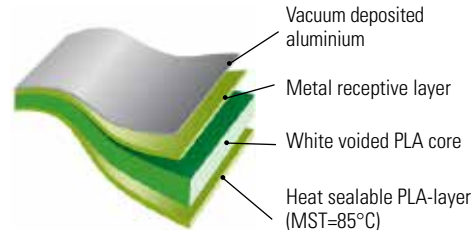


Nominal Thickness (µm)	Unit Weight (g/m ²)	Yield (m ² /kg)	Sealing temperature (°C)
20	24.8	40.3	85

O₂TR (cm³/m²/d): 15 WVTR (g/m²/d): 9.0

NZLD

BoPLA metallised white voided film, heat sealable, biodegradable



Nominal Thickness (µm)	Unit Weight (g/m ²)	Yield (m ² /kg)	Sealing temperature (°C)
30	28.8	34.7	85

O₂TR (cm³/m²/d): 20 WVTR (g/m²/d): 9.0

Metallised

White Voided



End-of-life options

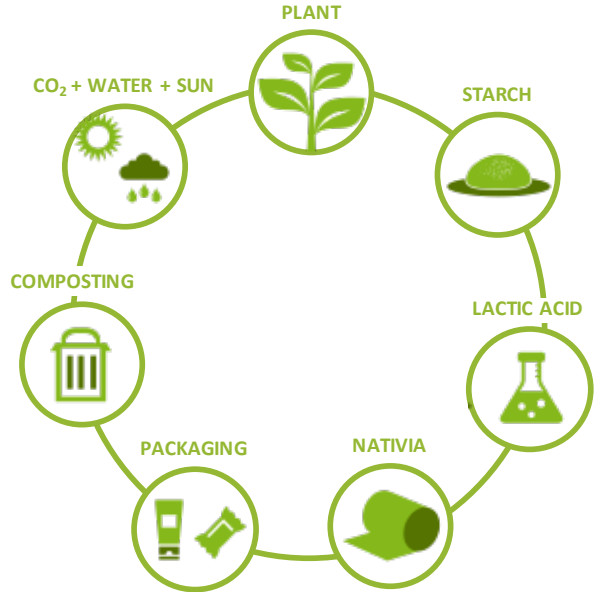
A closed loop

PLA offers multiple options in terms of end of life.

Besides landfilling, there are other solutions which allow to recover the energy value of PLA and minimize the impact on our environment.

Once converted into packaging, NATIVIA® films can be industrially composted and will disintegrate in six months into CO₂, water and humus, a soil nutrient. NATIVIA® films can also be mechanically and chemically recycled, as well as incinerated.

NATIVIA® films do not biodegrade in landfill conditions.





Taghleef Industries



- Production Sites
- Distribution Centers/Sales Offices



Taghleef Industries

THE CIRCULAR ECONOMY



TAGHLEEF INDUSTRIES

Part of Your SoluTion

For further information please contact flexiblepackaging@ti-films.com
or visit our website www.nativia.com