

PRODUCT PORTFOLIO




Taghleef Industries

PACKAGING SOLUTIONS WORLDWIDE

NATÍVIA[®]
BIO-BASED FILMS

NATIVIA®

B I O - B A S E D F I L M S

NATIVIA® is a new generation of bio-based biaxially oriented flexible packaging films made of  Ingeo™ 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 Vinçotte 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 Vinçotte.



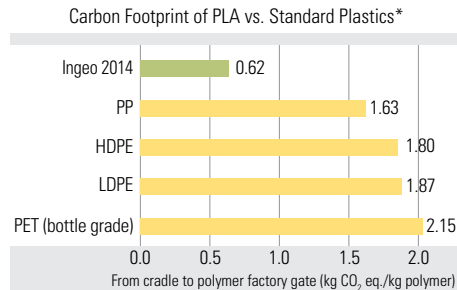
NTSS, NBSS, D808, **NEW**
NTNS



NWSS



NESS **NEW**



*Source: www.natureworksllc.com

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.



Specific Characteristics

- High Mechanical Strength
- High Seal Strength
- Good Transparency and Gloss
- Consistent surface energy ($\geq 37\text{mN/m}$; no decay)
- High Moisture Transmission Rate
- Proven barrier against mineral oils (MOSH/MOAH)
- Excellent Aroma Barrier
- Anti-fog properties
- Paper-like Dead Fold
- Excellent Twist
- Alcohol, Fat and Oil Resistance

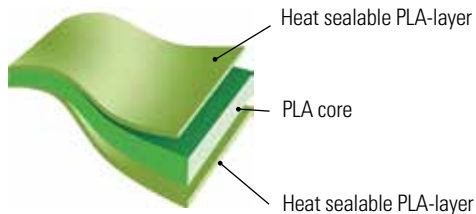
Segments and Applications

- Bakery
- Dairy/Perishable
- Labels
- Confectionery
- Snacks
- Lidding
- General wrapping
- Paper lamination



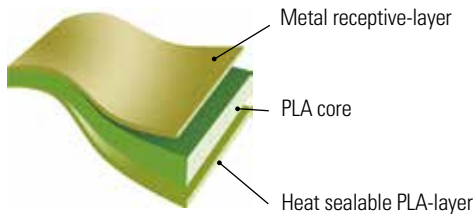
NTSS

BoPLA transparent film, both sides heat sealable, biodegradable.

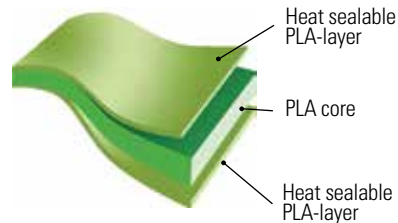


NBSS

BoPLA transparent film, both sides heat sealable, for metallising, biodegradable.

D808 **NEW**

BoPLA transparent film, improved heat stability, both sides heat sealable, biodegradable.



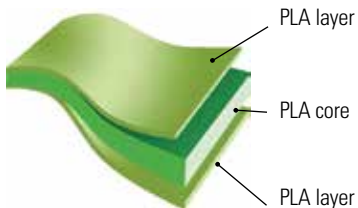
| Nominal Thickness (μm) | Unit Weight (g/m ²) | Yield (m ² /kg) | Sealing temperature (°C) | WVTR (g/m ² /d) | O ₂ TR (cm ³ /m ² /d) |
|------------------------|---------------------------------|----------------------------|--------------------------|----------------------------|--|
| 17 | 21.1 | 47.4 | 85 | 550 | 1300 |
| 20 | 24.8 | 40.3 | | 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 |

| 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 |
| 40 | 49.6 | 20.2 | | 200 | 540 |
| | | | | | |

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

NTNS

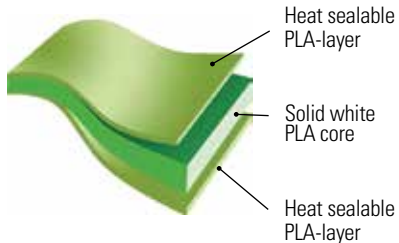
BoPLA transparent film, non sealable, biodegradable.



| Nominal Thickness (μm) | Unit Weight (g/m ²) | Yield (m ² /kg) | Sealing temperature (°C) |
|------------------------|---------------------------------|----------------------------|--------------------------|
| 20 | 24.8 | 40.3 | - |
| 25 | 31.0 | 32.3 | - |
| | | | |
| | | | |
| | | | |

NWSS

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

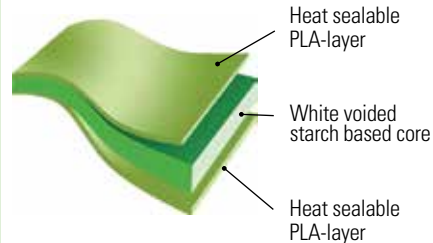


| Nominal Thickness (μm) | Unit Weight (g/m ²) | Yield (m ² /kg) | Sealing temperature (°C) |
|------------------------|---------------------------------|----------------------------|--------------------------|
| 30 | 37.2 | 26.9 | 85 |
| | | | |
| | | | |
| | | | |
| | | | |

NESS

NEW

Starch based white voided film, both sides heat sealable, biodegradable.



| Nominal Thickness (μm) | Unit Weight (g/m ²) | Yield (m ² /kg) | Sealing temperature (°C) |
|------------------------|---------------------------------|----------------------------|--------------------------|
| 40 | 38.0 | 26.3 | 85 |
| 50 | 47.5 | 21.1 | 85 |
| | | | |
| | | | |
| | | | |



Taghleef Industries



● Production Sites

● Distribution Centers/Sales Offices



Taghleef Industries

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