

Embio® EB20EX

Extrusion grade neat PLA resin with high-viscosity and moderate heat-resistance tailored for biaxial stretch film, sheet, and monofilament extrusion.

DESCRIPTION

Embio grades are plant-based polymers that offer a significant reduction in carbon footprint and sustainable circular options through recycling or composting. Embio EB20EX is a neat Polylactic Acid (PLA) resin with high viscosity and moderate crystallization rate, allowing for higher heat resistance in its final products. It is designed for food contact applications and meets industrial compostability standards, making it ideal for applications such as:

- Biaxially oriented film.
- Monofilament yarn for tea bag and twine.
- Thermoformed hot cup lids.
- Key building block in formulated blends.

TYPICAL PROPERTIES

Physical properties	Test method	Typical value
Melt Flow Rate, MFR, g/10 min (190°C, 2.16kg)	ISO 1133	2-5
Melt Flow Rate, MFR, g/10 min (210°C, 2.16kg)	ISO 1133	5-10
Density, g/cm ³	ISO 1183	1.24
Melting temperature, °C	ISO 11357	160-170
Glass transition temperature, °C	ISO 11357	58-60
Appearance	Visual	Clear (Opaque*)
Mechanical properties*	Test method	Typical value
Tensile yield strength, MPa	ISO 527	45-50
Elongation at break, %	ISO 527	2.5-5
Notched izod impact, J/m	ISO 179	20-35

*When fully crystallized using heated mold tooling

GENERAL INFORMATION

- Embio® EB20EX can be processed using standard biaxial stretching film, sheet and monofilament extrusion equipment designed for PET with minimal processing adjustments.
- Embio® EB20EX should be stored indoors in its original, unopened packaging to prevent moisture absorption and exposure to excessive heat.
- For extrusion processing, moisture content should be below 250 ppm to prevent viscosity degradation. A desiccant dryer capable of delivering air with a dew point below -40°C is recommended. Suggested drying condition are available in the processing guideline document.
- Avoid prolonged idle time with PLA in a filled system, as this may cause thermal degradation and leads to material degradation and blockages.
- We recommend performing trials to validate the processing of the material and the performance of the final product. GBI Biotech Technical Solutions team is available to help optimize the processing and to support application development.

FOOD CONTACT STATUS

This Embio grade is designed to comply with food contact regulations. For more information, please contact our GBI Biotech Products team.

COMPOSTABILITY

This Embio grade is designed to comply with the established industrial composting standards EN13432 and ASTM D6400. For further information, please contact our GBI Biotech Products team.

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