

Embio® EB40EX

Extrusion grade neat PLA with high-viscosity and baseline heat resistance, tailored for extrusion and blow molding process.

DESCRIPTION

Embio grades are plant-based polymers that offer a significant reduction in carbon footprint and sustainable circular options through recycling or composting. Embio EB40EX is a neat Polylactic Acid (PLA) resin with high viscosity, baseline heat resistance, and offers excellent transparency. It is designed for food contact applications and meets industrial compostability standards, making it ideal for applications such as:

- Thermoformed cold drink cups and lids.
- Bottles for mineral water and fresh juice.
- 3D printing filament.
- Thermoformed food containers and meat trays.
- Key building block in formulated blown film and straw blends.
- Extrusion coating paperboard.

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	150-155
Glass transition temperature, °C	ISO 11357	55-60
Appearance	Visual	Clear
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	1-5

GENERAL INFORMATION

- Embio® EB40EX can be processed using standard sheet extrusion, thermoforming and 3D printing filament equipment designed for PET with minimal processing adjustments.
- Embio® EB40EX should be stored indoors in its original, unopened packaging to prevent moisture absorption and exposure to excessive heat.
- For extrusion and blow mold 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. Emirates 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 Emirates 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 Emirates Biotech Products team.

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