Emirates Biotech

TECHNICAL DATA SHEET.

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Embio® EB10HF

High flow and excellent heat-resistance neat PLA resin for injection molding and meltblown processes

DESCRIPTION.

Embio grades are plant-based polymers that offer a significant reduction in carbon footprint and sustainable circular options through recycling or composting. Embio EB10HF is a neat Polylactic Acid (PLA) resin with excellent flow and rapid crystallization rate, allowing for higher heat resistance in its final products. It is certified for food contact applications and meets industrial compostability standards, making it ideal for applications such as:

- Injection molded tableware.
- Injection molded thin wall applications.
- Key building block in formulated blends.
- Meltbown nonwoven fabrics.

TYPICAL PROPERTIES.

Physical properties	Test method	Typical value
Melt Flow Rate MFR, g/10 min (190°C, 2.16kg)	ISO 1133	25-40
Melt Flow Rate MFR, g/10 min (210°C, 2.16kg)	ISO 1133	60-80
Density, g/cm^3	ISO 1183	1.24
Melting temperature, °C	ISO 11357	170-180
Glass transition temperature, °C	ISO 11357	58-60
Resin appearance	Visual	Opaque
Mechanical properties*	Test method	Typical value
Tensile yield strength, MPa	ISO 527	45-50
Elongation at break, %	ISO 527	2-5
Notched izod Impact, J/m	ISO 179	20-35
Heat Deflection Temperature HDT B, °C	ISO 75	90-105

*When fully crystallized using heated mold tooling

GENERAL INFORMATION.

- Embio EB10HF resin can be used as a neat resin or as part of a formulated blend.
- Embio EB10HF should be stored indoors in its original, unopened packaging to prevent moisture absorption and exposure to excessive heat.
- For injection molding, moisture content should be below 250 ppm, and below 50 ppm for meltblown processing, to prevent viscosity degradation. A desiccant dryer capable of delivering air with a dew point below -40°C is recommended. Suggested drying condition in each process is available in processing guideline document.
- Avoid starting up, shutting down, or transferring the line while it remains heated with PLA in the system for extended periods, as this can lead to material degradation and potential 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 for food contact regulations in both the USA and EU. For more information, please contact our Emirates Biotech Technical Solutions team.

COMPOSTABILITY.

This Embio grade is designed for the established industrial composting standards EN13432 and ASTM D6400. For further information, please contact our Emirates Biotech Technical Solutions team.