TECHNICAL DATA SHEET: EBM.11

By Emamou

Update: 30 March 2021

Language: English

Product Description

EBM.11 (PLA 95%) is a biodegradable compound, composed primarily from PLA biodegradable resin with a small quantity of impact modifier.

Advantages

① EBM.11 has excellent heat resistance

② When incinerated, EBM.11 does not generate any noxious side-products and hazardous gases.

③ EBM.11 is competitively priced

④ With relatively high MI, EBM.11 can be used in an injection on conventional machine

Applications

EBM.11 is popularly used in 3D filament application and injection molding processing.

De Bruynestraat 53, 2597 RE, The Hague, The Netherlands

Processing Information

Guide for Injection:

Item	Location	Unit	Value
Drying temperature	-	℃	< 50
Drying time	-	hour	3 ~ 4
Cylinder temperature	Rear	℃	160
	Middle	℃	170~180
	Front	℃	180~190
Nozzle temperature	-	℃	200
Speed of screw	-	rpm	100~200

Note: *Values are typical ones and are not be considered as specifications.*

In-line drying is recommended for EBM.11 resins. A moisture content of less than 0.25% (25 ppm) is recommended to prevent viscosity degradation. Polymer is supplied in foil lined boxes or bags dried to <0.25% when packaged. The resin should not be exposed to atmospheric conditions after drying. Keep the package sealed until ready to use and promptly dry and reseal any unused material. The drying curves for both amorphous and crystalline resins are shown to the right. It is important to consider accurate initial moisture, when calculating necessary drying time.

Average Physical and Mechanical Properties

Item	Conditions	Method	Unit	Value
Density	-	ASTM D792	g/ml	1.24
MFI	190℃/2.16kg	ASTM D1238	g/10min	6 ~ 8
Melt Temperature	-	ASTM 3418	℃	155 ~ 170
HDT	-	ASTM D648	℃	55
Flexible Strength	-	ASTM D790	Mpa	61
Tensile Elongation	-	ASTM D882	Mpa	39.7
Tensile Elongation	-	ASTM D882	%	7.2
Notched Izod Impact	-	ASTM D256	J/m	372

Bulk Storage Recommendations

The resin silos should be designed to maintain dry air in the silos and for materials to be isolated from the outside air. This design should be in contrast to an open, vented to atmosphere system that is typical for polystyrene resin silos. Key features that are added to a typical (example: polystyrene) resin silo to achieve this objective include a cyclone and rotary valve loading system and pressure vessel relief valves. The dry air put to the system is sized to the resin flow rate out of the silo. Not too much dry air would be needed and there may be excess instrument air (-30°Fdew point) available in the plant to meet the needs for dry air. Our estimate is 10 scfm for a 20,000 lb/hour rate resin usage. Typically, resin manufacturers specify aluminum or stainless steel silos for their own use and avoid epoxy-lined steel.

Certification

Equivalent to EN 13432

EN 13432

EU REACH Compliance

Our services

- **Provide in-depth consultation** on how to process or use specific materials and products
- **Design and deliver products** to your specific requirements

Need assistance? Feel free to get in touch

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