

TECHNICAL DATA SHEET: EBM.08

By Emamou



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Language: English

Product Description

EBM.08 (PBS 100%,1) is a biodegradable statistical aliphatic polyester based on the monomers, 1,4-Butanediol, Adipic Acid and Succinic Acid for compostable series.

Product characteristics:

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|-----------------------------------|--|
| - High molecular weight substance | - Great processability (at general extrusion machinery) |
| - Semi-crystalline structure | - M.F.I. (190°C 2.16kg/10min.): 15.0 ~ 25.0 |
| - Melting point: 90~120°C | - Good printability without pre-treatment & good weldability |

Applications

- EBM.08 is designed for hard rigid polymer resin.
- EBM.08 can be used to manufacture **fishing net, fishing strings, fabrics, rope, sheet, containers, paper coating.**
- EBM.08 is **physically similar to polypropylene (PP)**, so it can also be used for manufacturing houseware appliances, electronic devices, decoration items, etc.
- EBM.08 is **compatible with another biodegradable polymers such as PLA, PBAT, TPS.**



Advantages

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| <ul style="list-style-type: none"> ① EBM.08 is printable, weldable and can be <i>mechanically recycled</i> ② EBM.08 is highly compatible with natural materials ③ When incinerated, it does not generate any noxious side-products and hazardous gases | <ul style="list-style-type: none"> ④ With high MI, PBS 1 (100%) is easy to make an extrusion or injection ⑤ Shelf life: 12 months ⑥ EBM.08 compound can be supplied according to customer's requirements therefore satisfies the individual customer's need |
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Processing Information

In-line drying is recommended for EBM.03. 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 as above. It is important to consider accurate initial moisture, when calculating necessary drying time.

Guide for Injection:				Guide for Extrusion:			
Item	Location	Unit	Value	Item	Location	Unit	Value
Drying temperature	-	°C	< 80	Drying temperature	-	°C	< 80
Drying time	-	hour	7 ~ 8	Drying time	-	hour	7 ~ 8
Cylinder temperature	Rear	°C	160	Cylinder		°C	130~150
	Middle	°C	170~180	Head		°C	150~160
	Front	°C	180~190	Dies		°C	160~170
Nozzle temperature	-	°C	200				

Average Physical and Mechanical Properties

Item	Conditions	Method	Unit	Value
Density	-	ASTM D792	g/ml	1.25
MFI	190°C/2.16kg	ASTM D1238	g/10min	15 ~ 25
Melt Temperature	-	ASTM 3418	°C	115 ~ 118
Tensile Strength	-	ASTM D638	kgf/cm ²	> 370
Elongation	-	ASTM D638	%	> 10
HDT	-	JIS K7207	°C	92



Food Packaging Status

On 07 August 2020, EBM.0 passed the **European Food Contact Standard - Commission Regulation (EU) No 10/2011** for a) Plastic- Overall Migration and b) Plastic- Specific Migration of Heavy Metals. It also passed the **European Regulation (EC) No. 1907/2006 (REACH)** Annex XVII and its amendments for Polycyclic Aromatic Hydrocarbons (PAHs) content as well as the **European Directive 94/62/EC** (Pb, Cd, Hg, Cr VI).

Test report No: VNHL2007015118HG

No specific migration limit (SML) for the above referenced grade exists following the amended **Plastics Regulation 10/2011** requirements. Emamou would like to draw your attention to the fact that the European Plastics Regulation 10/2011, which applies to all European Member States, includes a limit of 10 mg/dm² of the overall migration from finished plastic articles into food. In accordance with the Plastics Regulation 10/2011 the migration should be measured on finished articles placed into contact with the foodstuff or appropriate food simulants for a period and at a temperature which are chosen by reference to the contact conditions in actual use, according to the rules laid down in Plastics Regulation 10/2011.

Composability Status

EBM.08 fulfils the requirements of the **European Standard EN 13432**, the US standard ASTM D 6400 for compostable and biodegradable polymers, because it can be degraded by micro-organisms. The biodegradation process in soil depends on the specific environment (climate, soil quality, population of micro-organisms).

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°F dew 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

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