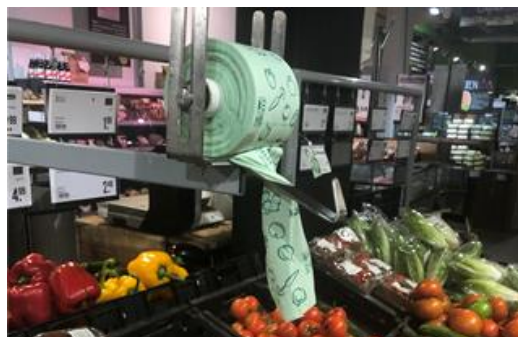


TECHNICAL DATA SHEET: EBM.10

By Emamou



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Language: English

Product Description

EBM.10(PBST) is a biodegradable compound with 20% bio-based, composed primarily from PBAT- a type of biodegradable resin. Shelf life of EBM.10 is 12 months.

Advantages of PBST

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|---------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| ① EBM.10 is printable, weldable and can be mechanically recycled | ⑤ Has high wet- resistance when used for organic waste collection |
| ② Has excellent down-gauging potential (low film thickness possible) | ⑥ Has a good tensile strength and therefore carrying capacity |
| ③ When incinerated, it does not generate any noxious side-products or hazardous gases | ⑦ Has a balanced combination of puncture and tear resistance |
| ④ With high MI, PBST is easy to make an extrusion on conventional blow machine | ⑧ Can be tailored to a grade that satisfies customers' requirements |

Applications

EBM.10 is designed for blown film processing. With low melt index (MI), EBM.10 is popularly used to produce very thin film (minimum: 13 microns). It is stable in the molten state provided that proper drying procedures are followed.

Main applications: Roll bag, compost bag, heavy duty bag.



Processing Information

In-line drying is recommended for EBM.10 compound. 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.

Item	Unit	Value
Cylinder	°C	130 ~ 150
Head	°C	150 ~ 160
Dies	°C	160 ~ 170

The resin should not be exposed to atmospheric conditions after drying. Keep the package sealed until the next use. 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.

Film's physical property is the best at BUR (Blow-Up Ratio): 3-4.

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	2 ~ 5
Acid Value	-	ASTM D974	KOHmg/g	< 1.5
Melt Temperature	-	ASTM 3418	°C	120 ~ 125
Tensile Strength (MD)	-	ASTM D638	kgf/cm ²	> 110
Tensile Strength (TD)	-	ASTM D638	kgf/cm ²	> 100
Elongation (MD)	-	ASTM D638	%	> 300
Elongation (TD)	-	ASTM D638	%	> 400
Tensile Strength (MD)	-	ASTM D1004	kgf/cm ²	> 110

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.



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www.emamou.com



info@emamou.com



+31 618 048 468

