



BioPBS™ FZ91PM / FZ91PB Technical Data Sheet

Film

Product Description

BioPBS™ is bio-based polybutylene succinate (PBS) produced from polymerization of bio-based succinic acid and 1,4-butanediol. Alike LDPE, BioPBS™ is soft and flexible semi-crystalline polyester with excellent properties suitable for blown and cast film extrusion.

Features:

- Good processability and stable bubble in existing LDPE machine
- Mulch films; No collection of the films after harvest for disposal or recycle. Bury into soil and gradually broken down into CO₂, water and biomass
- Suitable to other blown film applications, i.e., bag liners, agricultural film, etc.
- FZ91PM is food contact grade, approved by FDA (FCN No.1817) and JHOSPA, comply to EU10/2011
- OK COMPOST certified by TUV Austria in European Union, BPI in North America and ABA in Australia
- Renewable content certified by DIN CERTCO, JBPA and USDA

Properties		Test Method	Unit	FZ91PM/FZ91PB
Density		ISO 1183	g/cm ³	1.26
MFR (190°C, 2.16 kg)		ISO 1133	g/10 min	5
Melting Point		ISO 3146	°C	115
Tensile Modulus	MD	ISO 527-3	MPa	575
	TD			590
Yield Stress	MD	ISO 527-3	MPa	39
	TD			38
Stress at Break	MD	ISO 527-3	MPa	42
	TD			30
Strain at Break	MD	ISO 527-3	%	350
	TD			180
Elmendorf tear strength	MD	ISO 6383-2	N/mm	2
	TD			4
Puncture Impact		PTTMCC method	kJ/m	4

Fabrication conditions: B.U.R 2.5, Film thickness 20 µm



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Process Information

Recommended Processing Parameters	
Temperature	140-160°C
Die lip gap	0.8-1.0 mm
Blow up ratio	2-4

Supplied form, storage condition and drying condition

BioPBS™ pellet is dried and packed in aluminum-lined packaging before delivering to customers.

Do not store outdoors. Keep dry at ambient temperature. Avoid humid environment, heat and direct sunlight. Use material within 6 months after delivery date, in order to prevent possible material quality deterioration.

Pre-dry of the unopened BioPBS™ is not necessary. It is recommended to keep packages sealed until ready to process and using up the whole 25-kg bag. Unused material should be tightly sealed, kept away from open air, and pre-dried (Temperature 80°C for over 5 hours) to moisture content of less than 1,000 ppm (preferable less than 700 ppm) prior to using next time.



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