

# 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 CO<sub>2</sub>, 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.1574) and JHOSPA, comply to EU10/2011
- OK COMPOST certified by Vincotte in European Union and BPI in North America
- Renewable content certified by DIN CERTCO and JBPA

Properties		Test Method	Unit	FZ91PM/FZ91PB
Density		ISO 1183	g/cm <sup>3</sup>	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

### Process Information

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

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



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