



BiOPDS™

GREEN LIVING
REDEFINED

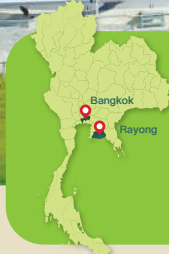


www.pttmcc.com

Company profile



**The world's first
bio-based PBS Plant**



Located in Rayong Province, Thailand with an annual capacity of **20,000 Tons** in production of BioPBS™.

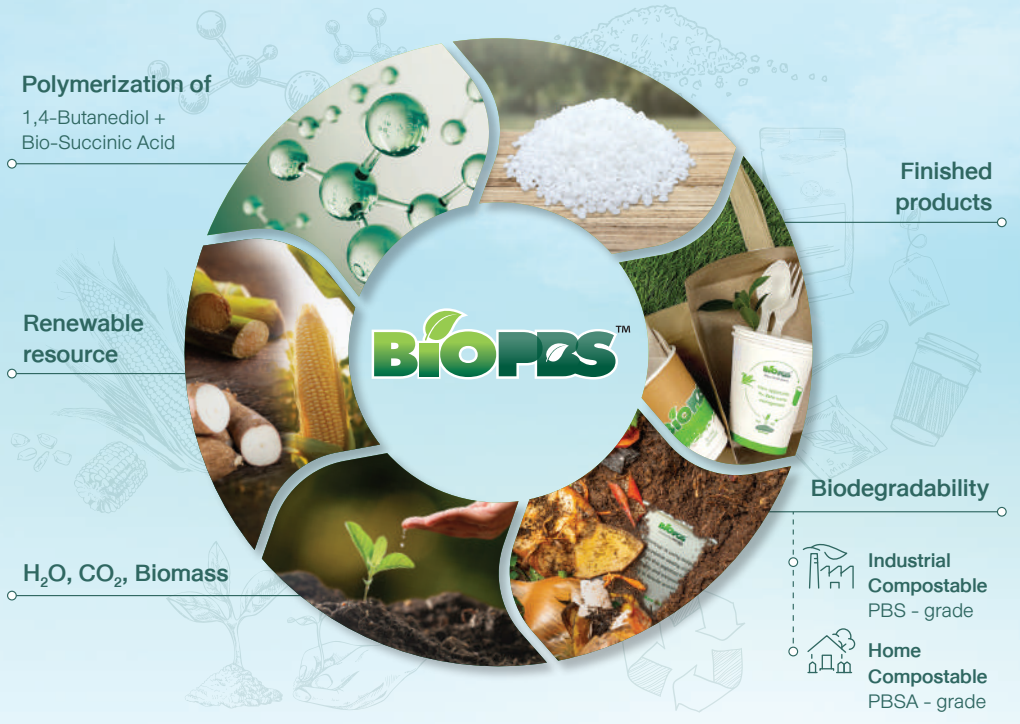
BioPBS™, which is licensed exclusively from Mitsubishi Chemical Group, is a bio-based and compostable material. Its dual bio properties make it stand out as sustainable polymer option.



With uncompromising dedication to quality, BioPBS™ would be a robust cornerstone for your product. Its inherent properties and reliability make it an essential building block, ensuring the foundation of excellence.



Resin life cycle



Advantages of BioPBS™



* Applicable to BioPBS™ coated paper

Certification & Compliance

Biodegradability & Compostability

Bio-Based

Food Contact

FCN
FZ-Grade: FCN# 2271
FD-Grade: FCN# 2272

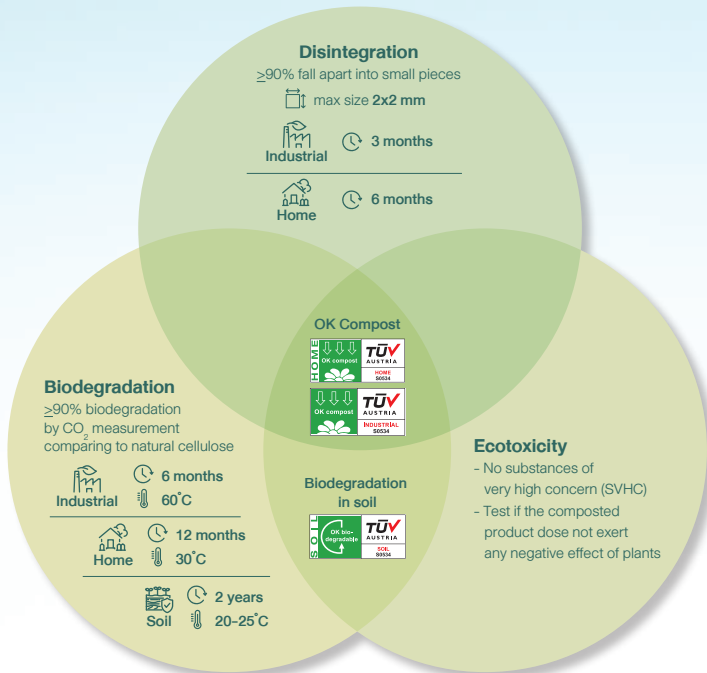
China National Food Safety Standard (GB)

JCII

Recyclability*

* For paper coating

Compostable criteria



Application introduction

Flexible packaging

BioPBS™ transforms into a flexible film suitable for various packaging applications. When used as a sealant layer laminated with paper or metallized cellulose, it forms a high-barrier laminate, enhancing shelf-life and protecting packaged food or contents.

- ✓ Excellent sealability
- ✓ Good processability
- ✓ Well-suited for lamination and metallization
- ✓ Odorless
- ✓ Certified as industrial, home compostable and soil biodegradable

Paper coating

Coating paper with BioPBS™ is versatile for hot and cold food and beverages, providing excellent adhesion. It contributes to a sustainable choice for industrial or home composting, combating plastic waste.

- ✓ Good processability & printability
- ✓ Good adhesion to paper
- ✓ Good heat stability
- ✓ Repulpable / recyclable











Coffee capsule / Cutlery

Creating eco-friendly products using injection and extrusion molding are achievable with BioPBS™. When compounded with other bioplastics (PLA, PBAT, or PHA), BioPBS™ can enhance properties such as impact strength, heat resistance, and shorten cycle time. It allows for the design of the biodegradation rate for the end product.

Fiber & Nonwoven

BioPBS™ can be transformed into fiber & nonwoven fabric. It imparts softness, flexibility, good bonding, and is also compatible with PLA, exhibiting excellent processability using conventional fiber spinning machines.

Technical properties

			FZ71PM FZ71PB	FZ71PM-HB FZ71PB-HB	FZ78TM	FD72PM FD72PB	FZ91PM FZ91PB	FZ91PM-HB FZ91PB-HB	FD92PM FD92PB	FZ79AC	FX83AC	FX85AC
Properties / Applications			Injection molding		Fiber Spunbond	Fiber Spunbond Injection molding	Extrusion Film		Extrusion Film	Paper Coating	Paper Coating	Paper Coating
Resin properties	Density (g/cm ³)	ISO 1183	1.26		1.26	1.24	1.26		1.24	1.26	1.26	1.26
	MFR (g/10 min) at 190°C, 2.16 kg	ISO 1133	22		22	25	5		4	15	15	15
	Melting point (°C)	ISO 3146	115		115	84	115		84	115	> 84	> 84
	HDT (°C) (0.45 MPa)	ISO 75-1	95		95	63	95		62	95	88	83
	Biobased content (%)	ASTM D6866	51	99	51	36	51	99	36	50	46	43
Mechanical properties	Tensile Modulus (MPa)	ISO 527-2	560		568	300	560		272	561	457	391
	Tensile Strength (MPa)		30		31	24	35		26	29	28	33
	Tensile Strain at break (%)		170		87	450	195		432	123	205	442
	Flexural Modulus (MPa)	ISO 178	630		664	300	650		288	553	488	413
	Flexural Strength (MPa)		40		35	17	40		16	35	27	23
Compostability	 Industrial compost											
	 Home compost											

Remarks

- PM, TM and AC grades are designed for food contact applications.
- PB grades are designed for non-food contact applications.
- HB Grades are The Higher Bio-biobased BioPBS™
- Technical properties data above are referenced from injection molding application.