



BiOPDS™

**GREEN LIVING
REDEFINED**

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

No.299/No.300
PTT MCC Biochem Company Limited

Food Contact

FCN

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

China National Food Safety Standard (GB)

JCII

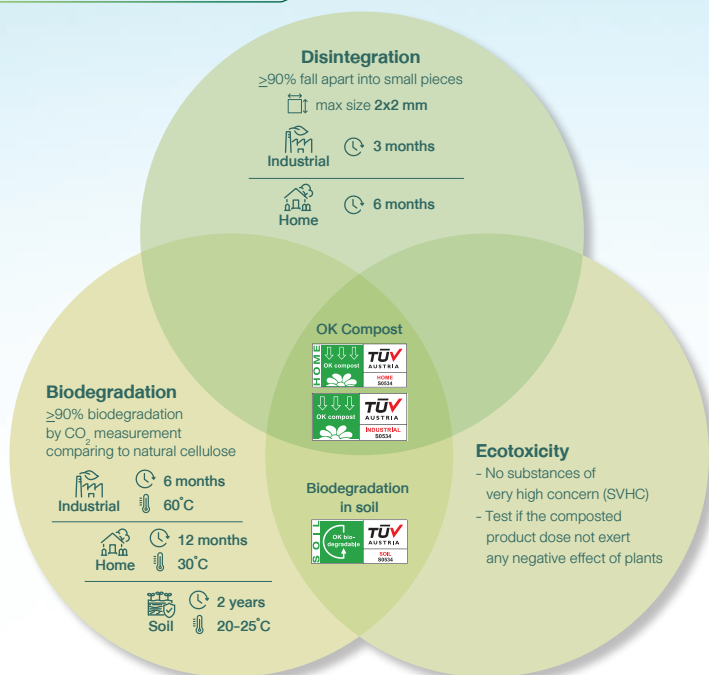
EU No.10/2011

Halal Certified
Kosher Certified

Repulpability*

* 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

			FZ71 (PM/PB)	FD72 (PM/PB)	FZ91 (PM/PB)	FD92 (PM/PB)	FZ78TM	FZ79AC	FX83AC	FX85AC	FZ79CC	FX83CC	FX85CC
Properties / Applications			Injection molding	Fiber Spunbond	Extrusion Film	Extrusion Film	Fiber Spunbond	Paper Coating	Paper Coating	Paper Coating	Paper Coating	Paper Coating	Paper Coating
Resin properties	Density (g/cm ³)	ISO 1183	1.26	1.24	1.26	1.24	1.26	1.26	1.26	1.26	1.32	1.32	1.32
	MFR (g/10 min) at 190°C, 2.16 kg	ISO 1133	22	22	5	4	22	15	15	15	10	12	12
	Melting point (°C)	ISO 3146	115	84	115	84	115	115	> 84	> 84	115	> 84	> 84
	HDT (°C) (0.45 MPa)	ISO 75-1	95	63	95	62	95	95	88	83	93	87	79
	Biobased content (%)	ASTM D6866	51	36	51	36	51	50	46	43	0	38	35
Mechanical properties	Tensile Modulus (MPa)	ISO 527-2	560	300	560	272	568	561	457	391	740	593	509
	Tensile Strength (MPa)		30	24	35	26	31	29	28	33	27	25	22
	Tensile Strain at break (%)		170	450	195	432	87	123	205	442	76	104	123
	Flexural Modulus (MPa)	ISO 178	630	300	650	288	664	553	488	413	588	522	498
	Flexural Strength (MPa)		40	17	40	16	35	35	27	23	34	29	24
Compostability	 Industrial compost												
	 Home compost												

Remarks

- PM, TM, AC and CC grades are designed for food contact applications.
- PB grades are designed for non-food contact applications.
- CC Grades are designed for excellent adhesion strength to paper with lower coating thickness.
- Technical properties data above are referenced from injection molding application.



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