

BIOMAT BIOPBS C311A is bio-based polybutylene succinate (PBS) produced from polymerisation of bio-based succinic acid and 1,4-butanediol. Alike LDPE, BIOMAT BIOPBS C311A is a soft and flexible semi-crystalline polyester with excellent properties suitable for injection moulding articles for general purpose.

Applications	Features
General Purpose	Semi Crystalline High Heat Resistance Short Cycle Time Dimensional Stability Good Flow Ability Soft and Flexible Good Processability Food Contact Acceptable

Sustainability	
Bio-Based Content	50%
Compostability	Industrially Compostable

Physical Properties			
Density	1.26 g/cm ³	ISO 1183	
Melt Mass Flow Rate	5 g/10min	ISO 1133	(190°C/2.16 kg)

Mechanical Properties			
Flexural Modulus	650 MPa	ISO 178	
Flexural Strength	40 MPa	ISO 178	
Notched Izod Impact Strength'	10 kJ/m ²	ISO 180	
Shrinkage	1.7 %		Flow
Tensile Strain at Break	210 %	ISO 527-2	
Tensile Stress at Break	36 MPa	ISO 527-2	
Tensile Stress at Yield	40 MPa	ISO 527-2	

Thermal Properties			
Glass Transition Temperature	28 °C		
Heat Distortion Temperature	95 °C	ISO 75-1	(0.45 Mpa)
Melt Temperature	115 °C	ISO 3146	

Processing Methods	
Extrusion	
Injection Moulding	

Injection Parameters

Front Temperature	200 °C
Hopper Temperature	60 °C
Middle Temperature	190 °C
Mould Temperature	25 - 40 °C
Nozzle Temperature	190 °C
Rear Temperature	180 °C

Forms

Pellets

Notes

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.

Once opened it is recommended to be 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.

Estimated Properties

Properties identified as 'Estimated**' have been estimated from the generic equivalent. These are provided for comparative purposes and are not reflective of the actual grade as the relevant data is not available.

Storage Recommendations

Keep dry at ambient temperature. Store indoors avoiding a humid environment, heat and direct sunlight. Use material within 6 months after delivery date, in order to prevent possible material quality deterioration.

Information in this document is based on our current knowledge and experience and can vary by batch. It does not relieve customers of the responsibility to carry out their own tests and experiments nor do they imply any legally binding assurance. Customers are responsible to determine their freedom to operate to ensure that their products do not infringe any intellectual properties. Emnandi Bioplastics Ltd assumes no obligation or liability for the information in this document.