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PRODUCT DESCRIPTION

[redacted] is a 100% biobased, semi-crystalline natural polymer produced through microbial fermentation. It has outstanding biodegradability. [redacted] is a low-flow, high-strength [redacted] suitable for processes such as extrusion, injection molding, casting, and blister molding.

PRODUCT FEATURES

- Superior heat resistance compared to other bioplastics (Heat distortion temperature: 105 °C)
- Outstanding barrier properties (against water vapor, oxygen, and carbon dioxide)
- TÜV Austria 100% biobased certificate
- European Commission food contact certificate (EU) No 10/2011
  Food contact certificate (JP) No 233/1947 by Japanese Ministry of Health, Labor and Welfare
  Compostable certificate by BPI in North America
  JBPA certificate for biodegradable and marine biodegradable bioplastics
  TÜV Austria certificate for biodegradability in marine, soil, home composting, and industrial composting environments

TYPICAL PHYSICAL PROPERTIES

Property	Method	Unit	[redacted]
Melt Flow Index (165 °C/2.16 kg) Density	ISO 1133	g/10 min	
Moisture and Volatile Content Ash	ISO 1183	g/cm3	
Content	ISO 15512	%	
Melting Temperature (Tm)	ISO 3451	%	
Thermal Degradation Temperature	ISO 11357	°C	
Glass Transition Temperature (Tg)	TGA, GPC	°C	
Heat Deflection Temperature (0.45 MPa)	ISO 11357	°C	
Tensile Strength	ISO 75	°C	
Elongation at Break	ISO 527	MPa	
Tensile Modulus	ISO 527	%	
Flexural Strength	ISO 527	MPa	
Flexural Modulus	ISO 178	MPa	
Charpy Notched Impact Strength	ISO 178	MPa	
Charpy Unnotched Impact Strength	ISO 179	kJ/m2	
	ISO 179	kJ/m2	

※Note: The above values are typical characteristic values of material, not specific product specifications.

PACKAGING AND STORAGE

Packaging Specifications: 25 kg/bag (sealed aluminum foil bag); 750 kg/bag (aluminum/plastic composite bulk bag).

Storage Conditions: To ensure the optimal use of the material, it is recommended to store it in its original packaging in a cool and dry environment. Avoid direct sunlight, high temperatures, and sources of ignition.

Shelf Life: 18 months.

PROCESSING CONDITIONS

To prevent the degradation of [redacted] during processing, it is recommended to use a screw combination with low shear force and to carry out any necessary drying before starting.

Section	Temperature	Precaution
Drying	60-80 °C	Dry for 4-6 hours to ensure moisture content is below 500 ppm. Maintain drying temperature below 80 °C to prevent material from sticking together.
Feed	100-120 °C	Adjustments can be made according to actual processing conditions; temperatures exceeding 180 °C will result in thermal degradation of the material, leading to decrease in molecular weight.
Melting & Mixing	140-165 °C	
Melt Conveying	80-140 °C	
Die	80-140 °C	
Molding/Cooling	40-50 °C	The material's crystallization rate is significantly influenced by the molding/cooling temperature. If it exceeds this temperature range, the material's crystallization will slow down, leading to processing failure.

CERTIFICATES