

Technical Data Sheet

hrofon[®] HF101

Product Description

HF101 is a kind of biodegradable poly(butylene adipate-co-terephthalate), which complies with the Chinese standard GB/T 28206, the US standard ASTM D6400, the European standard DIN EN 13432, and other standard for compostable and biodegradable materials. It could be degraded into carbon dioxide, water and biomass within 180 days. HF101 has good hydrolytic stability, ductility, air permeability and mechanical properties. It is a compostable degradable material with similar properties to LDPE. HF-101 can be used to produce biodegradable film packaging materials, agricultural films, paper cups and other environmental protection products through the process of film blowing, extrusion laminating and injection molding.

Physical Properties

Properties	Unit	Index	Test methods
Melt flow Index (190°C, 2.16kg)	g/10min	≤5	GB/T 3682-2018
Specific gravity	g/ml	1.20~1.26	GB/T 1033-2008
Melting point	°C	110~125	GB/T 19466.3-2004
Tensile strength	MPa	≥15	GB/T1040-2018
Elongation	%	≥ 500	GB/T1040-2018
Moisture content	%	≤ 0.05	GB/T 12006.2-2009
Carboxyl group content	mol/t	≤15	GB/T 14190-2017
Ash Content	%	≤ 0.1	GB/T 9345.1-2008

Product Features

- Excellent thermal stability
- Low melt flow index, Good Blown film & bubble stability
- High tensile strength and elongation

Applications

HF101 is not suitable for direct film blowing, it is suggested to add slip additive like SiO₂ or CaCO₃, it can also be blended with starch, PLA, PHA, cellulous etc. Normally the extrusion temperature is 140 °C -170 °C which depends on formula and processing machine, It is important to make sure the blowing machine starts from the lowest temperature. If the blowing performance is not optimized, it is recommended to increase the temperature by 5 °C.

Recommended processing conditions:

- (1) Drying conditions: 80 °C for 4 hours;
- (2) Modified processing temperature: 130~150 °C;
- (3) Blowing film processing temperature: 140~170 °C;

Package and storage

Packing specifications : 25 Kg/bag, 800 Kg/bag, 1 ton/bag

Temperatures during transportation and storage should not exceed 60 °C. Keep resin in dry and ventilated warehouse to prevent moisture. Avoid contacting with soil, water and sludge, and no exposure to direct sunlight and extreme temperature. Use up within 24 hours after been unpacked.

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