

GPM Fully Biodegradable Plastics

GPM 3 M70

Calcium Powder Filler Masterbatch Series

Blow Molding Grade Biodegradable Material

Version: 2.0 Issue Time: May 29, 2023

Product Features: Biodegradable&Compostable

Typical Application Fields: Material for blow mold

Usage: Biodegradable inorganic filler masterbatch, can be blended directly with PBAT for blown film, recommended ratio of PBAT to masterbatch is 2:3.

Form: Pellets, 25 kg / bag or 800 kg / bag

Thin Film Properties(thickness 40μm; M70: PBAT=2:3)			
Properties ^[1]	Test Method	Units	Values ^[2]
Tensile Strength, Horizontal/Longitudinal	ISO 527-3	【MPa】	22/28
Elongation at Break, Horizontal/Longitudinal	ISO 527-3	【%】	770/570
Tearing Strength	ASTM D 1922	【N/mm】	84
Free-falling Dart Impact	ISO 7765	【g】	450
Load Bearing		【kg】	6

[1] Not to be construed as specifications.

[2] The listed values are measured by test specification and used for referential purpose

Machining and Processing Informations

1. General Requirements

GPM 3 M70 is a biodegradable masterbatch. Moisture can lead to hydrolysis of the material, and residual moisture in excess of 2 parts per thousand can lead to defects such as fisheyes during processing.

2. Transportation and Storage

Transportation and storage temperatures should not exceed 70°C. Unopened packages can be stored for up to 12 months at room temperature (23°C). The product can be used directly in the intact package. If the package is damaged, it needs to be dried before use, because the moisture is higher than 1000ppm, which will affect the blown film processing, the effective drying condition is 90°C for 1 hour. The dried products need to be well treated against moisture.

3. Machining Parameter

Setting		Start Point	Range
Melting Temperature		115°C	100-120°C
Blown Film Heating Zone Temperature	Posterior Segment	140°C	135-145°C
	Middle Segment	140°C	135-145°C
	Anterior Segment	150°C	145-155°C
Die Head Temperature		160°C	150-165°C
Processing Temperature Limit		170°C	
Pre-drying Conditions		90°C, 1hr	



Statement

All test conditions and standards are listed, the dates are for reference only, the test performance will vary with the processing method and conditions. Environmental conditions can affect the performance of the material, and the product needs to be used as soon as possible after opening.

