

BM3002HT Resin

Injection Molding Grade

Product Description

The Natur-Tec® BM3002HT is a biobased and compostable impact-modified, nucleating masterbatch intended for injection molding. Natur-Tec® BM3002HT meets the requirements of international standards for compostable plastics such as ASTM D6400 (U.S.), EN 13432, and ISO 17088.

Product Features

- Engineered for applications where high-heat performance and/or dimensional stability are critical such as cutlery, coffee capsules, and stirrers
- To be blended with Ingeo™ or Luminy® neat grade PLAs where the final blend is molded either in (1) a single-step using in-mold crystallization at much-reduced cycle times and minimum part warpage (as part of the Natur-Tec® BF3002IM) or (2) in a two-step economical process where parts are crystallized in a secondary oven (as part of the Natur-Tec® BF3002HT)
- Resin going through two heat histories is limited to the percent (%) masterbatch letdown (typically 15-50%) which helps maintain the molecular weight, resulting in improved mechanical strength for the final part as compared to a part manufactured with 100% fully compounded resin

Applications

When blended with Ingeo™ or Luminy® neat grade PLAs, BM3002HT can be used for injection molded plastic applications requiring high heat performance such as cutlery, coffee capsules, and stir sticks.



Food Contact

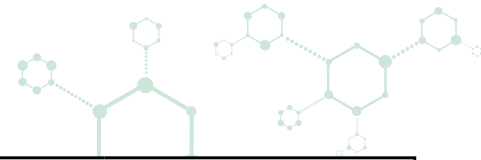
Natur-Tec® BM3002HT is compliant with both US FDA regulations and food contact regulations (EC) 1935/2004, (EU) 10/2011, and its amendments through (EU) 2019/37.

Certifications



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BM3002HT Technical Data				
Physical Properties			BM3002HT	
Property	Unit	Test Method	Value	
Specific Gravity	g/cm ³	ASTM D792	1.7-1.9	
			BF3002IM*	BF3002HT**
			Value	Value
Specific Gravity	g/cm ³	ASTM D792	1.3-1.4	1.7-1.9
Melt Flow Rate (190 °C with 2.16 kg)	g/10 min	ASTM D1238	6-9	5-8
Mold Shrinkage	%	ASTM D955	Perpendicular to Flow: 1.1 – 1.3 Parallel to Flow: 0.6 – 0.7 (when molded at 100 °C)	Perpendicular to Flow: < 0.1 Parallel to Flow: 0.2 – 0.3
Mechanical Properties			BF3002IM*	BF3002HT**
Property	Unit	Test Method	Value	Value
Tensile Strength at Break	MPa	ASTM D638	56	64
Tensile Elongation at Break	%	ASTM D638	9	7
Tensile Modulus	MPa	ASTM D638	2350	2629
Flexural Modulus	MPa	ASTM D790	6300	7436
Notched Izod Impact Strength	J/m	ASTM D256	35	34.8
Thermal Properties			BF3002IM*	BF3002HT**
Property	Unit	Test Method	Value	Value
Heat Deflection Temperature (Un-annealed)	°C	ASTM D648 (0.455 MPa)	56	60
Heat Deflection Temperature (Annealed)	°C	ASTM D648 (0.455 MPa)	97	125

* Data obtained from standard test bars molded at 100°C with 25/75 blend of Natur-Tec® BM3002HT masterbatch and Ingeo™ 3100HP

** Data obtained from standard annealed test bars molded with 50/50 blend of Natur-Tec® BM3002HT masterbatch and Ingeo™ 3001D

Storage and Handling: For optimum performance and product life, store in a cool dry place out of direct sunlight. Refer to the Safety Data Sheet and the Processing Guide for specific handling and processing instructions.

