

Product Description

Natur-Tec™ BF3002HT is a bio-based and biodegradable polymer resin made with Ingeo™. It is a two-part system comprised of a blend of Natur-Tec's highly filled masterbatch and virgin Ingeo™. A key advantage of this blend is that only 50% of the resin used for molding goes through two heat histories, which in turn, helps in maintaining the molecular weight, and therefore results in improved mechanical strength for the final part, as compared to a part manufactured with the 100% fully-compounded resin.

Natur-Tec™ BF3002HT is manufactured using sustainable and renewable resources, per the ASTM D6866 standard, which allows industry and consumers the opportunity to reduce or neutralize their carbon footprint. Natur-Tec resins are engineered for high performance. Shrinkage of BF3002HT is similar to that of polystyrene and as such, it is easily processable on equipment designed for polystyrene material. Natur-Tec BF3002HT is designed to meet requirements of international standards for compostable plastics such as ASTM D6400 (U.S.) and EN13432. Please refer to the Material Safety Data Sheet and the Processing Guide for specific handling and processing instructions.

Applications

Natur-Tec® BF3002HT can be used for injection molded plastic applications such as making cutlery, pens, hangers, containers and packaging.

Properties

Physical Properties*

| Property | Unit | Test Method | Value |
|---|-------------------|-------------|------------------------------------|
| Specific Gravity | g/cm ³ | ASTM D792 | 1.4 – 1.5 |
| ** Melt Flow Rate MFR 190°C, 2.16 kg | g/10 min | ASTM D1238 | 5 – 8 |
| Molding Shrinkage | % | ASTM D955 | Axial: 0.2 – 0.3 Lateral: < 0.1 |

Mechanical Properties*

| Property | Unit | Test Method | Value |
|------------------------------|------|-------------|-------|
| Tensile Strength | MPa | ASTM D638 | 64 |
| Elongation | % | ASTM D638 | 7 |
| Flexural Strength | MPa | ASTM D790 | 108 |
| Notched Izod Impact Strength | J/m | ASTM D256 | 8.7 |

Thermal Properties*

| Property | Unit | Test Method | Value |
|---|------|-------------|-------|
| Heat Deflection Temperature (Un-annealed) | °C | ASTM D648 | 60 |
| Heat Deflection Temperature (Annealed) | °C | ASTM D648 | 125 |

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

** MFR determined from a 50/50 blend of Natur-Tec® BM3002HT masterbatch and Ingeo™ 3001D.

Note:

The property values listed above are calculated under standard temperature and humidity conditions. These property values should be viewed as guidelines only, and may vary based on processing conditions. No warranties of any kind, either expressed or implied are made regarding products described or regarding designs, data or information set forth.

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