

Terratek® BD

BD4800

Product Description

Terratek® BD4800 resins are a proprietary blend of bio fillers, natural and synthetic biodegradable polymers. The resins are made with ingredients which pass industry standards for composting.

Preliminary Data- Pending Third-Party Evaluation

| Sustainability Guide | |
|----------------------------|---|
| Biobased content ASTM 6866 | - |
| Biobased content by weight | - |
| Recycled content | - |
| Energy use | - |
| Compostable | - |

| Property | Test Method | Value |
|-----------------------------|-------------|------------------------------|
| Specific Gravity | ASTM D792 | 1.27 g/cm ³ |
| Shrinkage (48 hrs) | ASTM D955 | 0.0101 in/in (parallel) |
| Shrinkage (48 hrs) | ASTM D955 | 0.0050 in/in (perpendicular) |
| Melt Index (190°C/ 2.16 kg) | ASTM D1238 | 6.0 g/10 min |
| Tensile Strength (at Yield) | ASTM D638 | 7,931 psi |
| Tensile Modulus | ASTM D638 | 81,084.3 psi |
| Elongation | | 138.4 % |
| Notched Izod | ASTM D256 | 0.83 ft lb/in |
| Flex Strength | ASTM D790 | 3,812.5 psi |
| Flex Modulus | ASTM D790 | 82,569 psi |

General Processing Recommendations

Green Dot's Terratek® BD4800 must be dried due to the hygroscopic nature of the polymers used in this material and their tendency to hydrolyze in the presents of water, pre-drying the resin is required. Green Dot recommends that the moisture level of the resin not be above 0.05% as measured by loss-in-weight at 270°F for 15 minutes. If the moisture is above the recommended level, the resin should be dried in a desiccant dryer at 150°F until the moisture is at or below the recommended level. Failure to dry the material will result in material hydrolysis which can cause excessively high flow/flashing; brittleness/low strength; and can result if shorter than normal shelf life of molded parts.

Typical injection molding temperatures are listed below, these are only a guide and may need to be changed based on the particular application:

| | |
|--------|----------------|
| Rear | 310°F to 360°F |
| Middle | 320°F to 360°F |
| Front | 320°F to 360°F |
| Nozzle | 320°F to 360°F |
| Mold | 40°F to 95°F |

The melt temperature of the resin should remain below 400°F to prevent the material from discoloring and having a burnt odor.

Packaging and Storing

Terratek® BD 4800 resin is typically packaged in a sealed plastic-lined Gaylord at 1200 lbs/Gaylord or 250 lbs fiber drums. The product should be stored in a cool, dry, and sanitary area to achieve maximum stability. Keep material in a sealed package or container to prevent excess moisture absorption.

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| The information and recommendations in this sheet are based on our experience and analysis using standard procedures, and are believed to be accurate and reliable. However, they serve merely as typical guides, and are presented in good faith for the benefit of our customers. No guarantee, expressed or implied, is made regarding accuracy of the analysis, patent infringement, liabilities, or risks involved from the application of our products. | Issued: | 2/1/2018 |
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