Green Dot Bioplastics introduces frac melt compostable bioplastic for extrusion

August 27, 2024

Perfect for extrusion blow molding and demanding thermoforming applications

Green Dot Bioplastics is announcing a bioplastic resin designed specifically for processes requiring very high melt strength.

Countless single-use plastic packaging items are made using melt forming processes. Common examples are extrusion blow molded bottles and containers. And even more common are thermoformed clamshells, cups, trays, food service, and industrial containers.

Extrusion blow molding and thermoforming both require the finished part to be shaped from the polymer while it is molten. It is important, then, that the polymer has significant strength in the molten phase so it can be stretched and shaped without sagging, tearing, or thinning at critical points in the process or part design. To achieve the desired effect, most extrusion blow molding and thermoformed parts are made from traditional petrochemical plastics like polyethylene, polypropylene, or PET, with very high viscosity and very low melt flow rate (MFR). When the MFR is so low that it measures 1gm/10minutes or less it is called a fractional melt polymer.

Increasingly, packaging companies are looking for green alternatives to traditional petrochemical plastics. Bioplastics made from carbon-sequestering renewable resources are a favorite option. Green Dot is introducing Terratek® BD4802, a plant-based polymer with the additional benefit of being biodegradable and achieving international composting standards. BD4802 has a very favorable beginning of life and end of life story; being both recyclable and compostable.

The most unique feature of BD4802 is its low viscosity and very high melt strength. BD4802 has an MFR of 1 or less, a true fractional melt polymer for very high melt strength processes. *Click here for data sheet.*

“This is a breakthrough invention,” said Michael Parker, R&D Director, Green Dot Bioplastics. “BD4802 is perfect for extrusion blow molding applications and making sheet for thermoforming. Because it is very tough after cooling it is also applicable for thermoformed parts, spinning for nonwoven processes, even some profile extruded tubing applications”.

“We wake up every morning thinking about how we develop new materials which can help our planet,” said Mark Remmert, CEO. “But when we invent eco-friendly materials with outstanding engineering properties, rivaling the best of anything on the market, it is truly a great day.”

About Green Dot Bioplastics, Inc.

Green Dot Bioplastics, Inc is a bioscience social enterprise headquartered in Emporia, Kansas. Celebrating a decade of sustainability, Green Dot is a full-service bioplastics company dedicated to delivering the very best of sustainable materials to our customers. That’s the thinking behind our Terratek® line of bioplastics, developed to meet the growing demand for biobased and compostable materials with fewer of the drawbacks associated with traditional plastics. Learn more at https://greendotbioplastics.com.

---

527 Commercial Suite 310 Emporia, KS 66801
620–273-8919