Green Dot Bioplastics Launches Expanded Line of Compostable Resins for Packaging and Single-Use Applications

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Green Dot Bioplastics, a leading developer and supplier of bioplastic materials for innovative, sustainable end-uses, has expanded its Terratek® BD line with nine new compostable grades that are targeted for single-use and packaging applications. The expanded offering for film extrusion, thermoforming, and injection molding is in line with Green Dot Bioplastics’ goal to achieve faster rates of biodegradability, in ambient conditions, while meeting the growing sustainability demands of brand owners and consumers.
These new compostable materials are an integral part of the company’s extensive bioplastics portfolio which includes biocomposites, elastomers, and natural fiber-reinforced resins all produced at the company’s newly expanded manufacturing facility in Onaga, Kan.

“This launch culminates our extensive development of a new category of compostable materials for single-use applications and packaging markets,” said Mark Remmert, Green Dot Bioplastics CEO. “We’ve successfully developed unique materials that have a faster rate of biodegradation in ambient composting conditions and the functional performance that the market demands.”

The five new film grades are compostable starch blends that require no tooling or process modifications when run on traditional blown or cast film equipment. Among them are Terratek® BD3003 which exhibits high puncture resistance and tear strength and is heat sealable like linear low-density polyethylene (LDPE) film. Meanwhile, Terratek® BD3300 is a stiff, high-modulus material with high heat resistance and overall properties similar to HDPE film.

The film grades deliver faster rates of biodegradability for home composting, industrial composting, and soil biodegradability. They are targeted for a range of applications including produce bags, bubble wrap, agricultural films, and other lawn and garden packaging. The film materials are completing third-party certification by TüV Austria, a leading European certifying agency.

Green Dot’s new compostable offering also includes three new thermoforming grades which provide a range of properties including clarity. Other grades provide higher heat performance and greater flexibility for applications such as food service packaging, takeout containers, deli packages, and straws. The thermoforming grades are also completing final certification by TüV Austria.

Two injection molding grades round out the new compostable offering. They deliver higher heat performance and enhanced processability (lower cycle times) for caps/closures, food service ware, and takeout containers. In a breakthrough application development effort, Green Dot worked with a customer to commercialize a living hinge design for an injection molded package. Physical and mechanical properties of typical bioplastic resins have not previously allowed the molding of a living hinge capable of hundreds of flexural openings and closures while delivering mechanical properties necessary for a polypropylene-type enclosure.
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 the Terratek® line of bioplastics, developed to meet the growing demand for biobased and compostable materials with fewer of the drawbacks associated with traditional plastics.

PRESS CONTACT:
Joseph Grande
J. Grande communications Inc.
413.684.2463
joe@jgrandecommunications.com

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