

## Showing the Power of Natural Fibers: Bio-based Polyamide Reduces CO<sub>2</sub> Emissions

October 27, 2010

Ever since the launch of the “jute, not plastic” campaign in Germany over 30 years ago in an effort to protect the environment, people assume that natural fibers automatically mean less convenience or worse performance. The natural fiber-reinforced VESTAMID® *Terra* developed by Essen, Germany-based Evonik Industries proves that this is not the case. Reinforced with materials such as bamboo fibers, the bio-based polyamide molding compounds have outstanding mechanical and physical properties and are in no way inferior to other engineering plastics. Thanks to their lower carbon footprint than exclusively petroleum-based polyamides, VESTAMID® *Terra* products make a significant contribution toward conserving fossil fuels and reducing the greenhouse effect. This is something that has been confirmed by TÜV, Germany’s Technical Inspection Association.

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Evonik currently offers two types of bio-based polyamides: VESTAMID® *Terra* DS is a 100% bio-based polyamide 1010, while VESTAMID® *Terra* HS is a polyamide 610 that contains approximately 60% renewable raw materials. Each type is available in two different viscosities as well as glass fiber-reinforced with a glass fiber content of 30% to 65%. VESTAMID® *Terra* DS is now also being marketed with 5% to 50% bamboo fiber reinforcement as a purely natural product. The DIN CERTCO organization for conformity assessment confirms the conformity of VESTAMID® *Terra* DS with the corresponding standards as >85% bio-based.

VESTAMID® *Terra* molding compounds are semicrystalline and are thus distinguished by high mechanical strength and good resistance to chemicals and stress cracking. They also have high to very high heat deflection temperatures and a low absorption capacity for water, so that the good mechanical properties are retained even at high humidity. These compounds can be processed on all injection molding machines adapted for polyamide and are also suitable for filament production.

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**Captions:**

100% natural and yet high-performing: Reinforced with bamboo fibers, VESTAMID® Terra molding compounds have outstanding mechanical and physical properties.



VESTAMID® Terra DS as a 100% bio-based product is allowed to use this mark.



***Exceptional solutions in plastics are no exception for us***

*Working together with its customers and partners, Evonik develops products and system solutions for and with plastics. We thus have a range of services that satisfies market and application requirements.*

*Evonik is present in all major growth markets around the globe. Its customized products and solutions include raw materials, sophisticated additives and paints, engineering plastics, high-performance polymers, and semi-finished products. They are virtually exactly what is needed for tomorrow's efficient, sustainable, and environmentally friendly ideas.*

**About Evonik**

Evonik Industries is the creative industrial group from Germany. In our core business of specialty chemicals, we are a global leader. In addition, Evonik is an expert in power generation from hard coal and renewable energies, and one of the largest private residential real estate companies in Germany. Our company's performance is shaped by creativity, specialization, continuous self-renewal, and reliability.

Evonik is active in over 100 countries around the world. In its fiscal year 2009 about 39,000 employees generated sales of about €13.1 billion and an operating profit (EBITDA) of about €2.0 billion.

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