

Integrated expertise: No region without direct contacts

Evonik, the creative industrial group from Germany, is one of the world leaders in specialty chemicals. Its activities focus on the key megatrends of health, nutrition, resource efficiency and globalization. Evonik benefits specifically from its innovative prowess and integrated technology platforms.

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Evonik. Power to create.

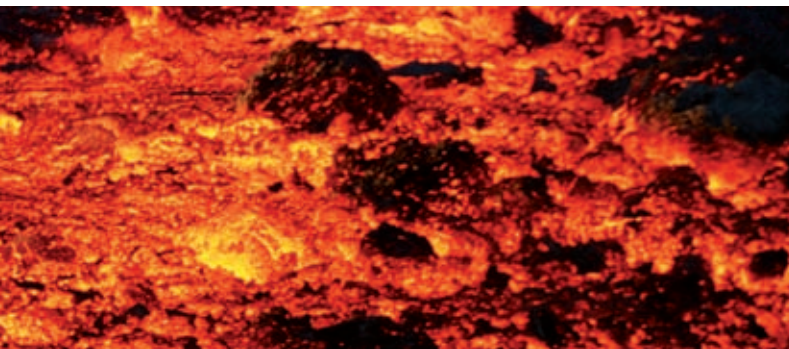


High performance and green?

VESTAMID® HTplus provides both

Evonik. Power to create.





Even at extreme temperatures, VESTAMID® HTplus performs at the top of its game – and without sacrificing its biocompatibility.

VESTAMID® HTplus M3000 is a new biobased polyphthalamide (PPA), a next-generation polymer by Evonik. The polyphthalamide based on PA10T/X is a semicrystalline product with aromatic units.

As its monomers largely consist of naturally sourced raw materials, it significantly reduces CO₂ emissions compared to pure petroleum-based polyamides.

VESTAMID® HTplus is based on castor oil derivatives, a fully renewable resource, and is therefore originated from a non-food crop. The castor oil plant of the family of the Euphorbiaceae (*Ricinus communis*) is a robust annual plant mainly grown in semi-arid areas and poor soil.

VESTAMID® HTplus is ideally suited to an enormous variety of applications in such areas as the automotive and electronics industries, mechanical engineering and sports. It is therefore suitable for the same applications as classical polyphthalamides.



Applications

Electronics industry

Thanks to its high temperature resistance and excellent processability, VESTAMID® HTplus M3000 is ideally suited to use in miniature components with thin walls.

Demand for these properties is particularly high among mobile phone manufacturers. M3000 gives smart phones, for example, the required stability without limiting flexibility and design freedom. The same holds true for any plastic-based component, whether ultra-thin mobile phone cases, tiny connectors or even LDS-structured components.

Automobile industry

Molded parts in automotive manufacture also benefit from the material's excellent performance and processability: components are lighter, use less material, and profit from greater design freedom.

Sports applications

In the Sports & Lifestyle industry, M3000 can be used in such forms as filaments. Woven into an internal network, for instance, filaments lend a "touch of green" to high-performance sports footwear.

And much more...

VESTAMID® HTplus M3000 is suitable for every application that benefits from the added value of polyphthalamides. If you value not only performance but "green" attributes, talk to us – for example, when it comes to such applications as composites. We look forward to working with you to develop new application possibilities.



Product properties

VESTAMID® HTplus PA10T/X offers superior performance compared to petroleum-based products.

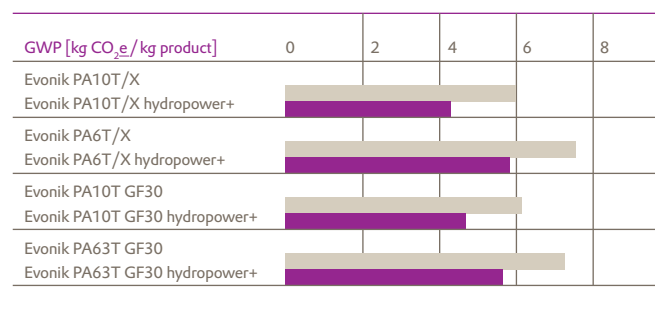
- 50% biobased
- Long-term temperature resistance
- Very high chemical resistance
- Excellent mechanical properties
- High dimensional stability
- Very good creep resistance
- High melting point of over 290°C
- Excellent processability

Your benefits

Smaller carbon footprint, same performance: The LifeCycleAnalysis demonstrates the long-term advantages of VESTAMID® HTplus

- "Green" technology
- Enabling new technologies
- Metal substitution
- Manufacturing of electronic components via soldering process without lead

Carbon Footprint for PA10T/63T



Reference year: 2010 evaluation: CML2001, Nov. 2009 + using hydropower for all own production steps