

Technology in 3D

VESTAMID® HT*plus* for three-dimensional interconnect devices

In VESTAMID® HT*plus*, Evonik Industries is offering a new-generation PPA that is customized precisely to the requirements of the laser direct structuring (LDS) process. With its outstanding heat resistance, the product is particularly suitable for use in lead-free soldering processes.

VESTAMID® HT*plus*, which is reinforced with glass fibers and mineral fillers, is available as 50% bio-based PA10T, which has a particularly wide processing window and an extremely low water uptake, and as PA6T/X, which possesses a higher thermal resistance. Both grades exhibit excellent chemical resistance. Their good processability and excellent thermo-mechanical properties make it possible to manufacture high-quality components.

The process

Laser direct structuring stands for freedom of design, miniaturization, and precision of electronic components. This technology allows to generate metallic conducting structures directly on the surface of three-dimensional plastic substrates. Many applications already make use of this process, for example, cell phone antennae and computers, medical devices, and automotive electronics. Manufacturing by means of injection molding ensures the greatest possible freedom of design.

On the surface of the plastic part, an infrared laser beam produces a preliminary structure —as a microscopic rough surface— that corresponds to the subsequent layout of the conducting paths and also provides chemical-physical activation in this area. This activation is made possible by means of a special additive in the plastic. In the subsequent metallization step, conducting paths are selectively generated that are firmly anchored to the surface.

Visit us at the Hybridica (Hall C1, Booth 630) in Munich between November 9 and 12.

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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.

Disclaimer

In so far as forecasts or expectations are expressed in this press release or where our statements concern the future, these forecasts, expectations or statements may involve known or unknown risks and uncertainties. Actual results or developments may vary, depending on changes in the operating environment. Neither Evonik Industries AG nor its group companies assume an obligation to update the forecasts, expectations or statements contained in this release.

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