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# Stratasys Adds PEKK-Based, High-Performance Thermoplastic: Antero 800NA, for FDM Process

New material allows aerospace and other high-performance vehicle makers to move to additive manufacturing for high-temperature, chemical-exposed parts

MINNEAPOLIS & REHOVOT, Israel--(BUSINESS WIRE)-- [Stratasys](#) (Nasdaq:SSYS), a global leader in applied additive technology solutions, today introduced for its FDM process, a new PEKK-based high-performance thermoplastic, called Antero™ 800NA.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20180409006225/en/>



Antero 800NA (PEKK) bracket, used to mount hydraulic components in an aircraft wing. It replaced a machined PEEK part, eliminating the material waste of the subtractive process. (Photo: Business Wire)

properties.

Aerospace and other high-performance vehicle makers wishing to move to an additive manufacturing process will be among the most interested in Antero 800NA.

Its superior chemical resistance means it can be used for components exposed to

A PEKK material for FDM additive manufacturing offers significant advantages for many manufacturers, including lighter-weight parts, reduced inventories, and improved profitability.

[Antero 800NA](#) outperforms other high-performance thermoplastics with its superior chemical resistance and ultra-low outgassing. In addition, the material possesses high temperature resistance and exceptional wear

hydrocarbons, such as fuels and lubricants, as well as many acids. Additionally, its low outgassing allows it to be used in confined spaces and sensitive environments, such as satellites, where materials may not outgas under vacuum. Antero 800NA's high operating temperature is designed to allow it to be used for applications under the hood or in engine compartments.

Custom or low-volume additive manufacturing with Antero 800NA has economic advantages over traditional machining processes. With traditional processes, manufacturers buy bulk PEKK (available only in limited shapes and sizes) and machine it to a net shape, which wastes a considerable amount of expensive material and has a longer lead time. With an additive process, the workflow is faster, yielding lighter-weight parts with optimized topology and significantly reduced waist.

Another important advantage with the additive process is it allows manufacturers to produce PEKK parts on-demand and eliminate inventory that might sit on a shelf for years before being needed. The reduction in inventory costs means increased profitability.

Besides space, aerospace and automotive, target industries include high-end industrial manufacturing as well as oil-and-gas applications.

Unlike PEKK parts made with some powder-based additive processes, Antero 800NA parts created with the FDM process are more durable and dimensionally stable, even when building large parts. They are also cost-effective to produce, even at low quantities.

Antero 800NA's advantages over competing additive processes include:

- Better elongation in the X and Z axis, resulting in tougher parts
- Consistent mechanical properties
- Low-volume cost advantages
- Large-part dimensional stability
- FDM technology advantages, including ease-of-use and design freedom

Antero 800NA is the first commercial product in a planned new family of PEKK-based materials. The material will be offered with an initial layer thickness of 0.010 in (0.25mm) and additional layer-thickness options planned for future release.

Antero 800NA is expected to be available for use on Stratasys' Fortus 450mc Production 3D Printer in Q2, 2018, and for the Fortus 900mc Production 3D Printer in Q4, 2018. Existing Fortus 450mc users with the high-performance material bundle will be able to use Antero 800NA without additional license fees. Fortus 450mc users without the high-performance materials bundle can purchase the high-performance material bundle or an individual material license. Fortus 450mc systems will require the Nylon 12CF hardware upgrade along with a new tip and purge ledge to operate the Antero 800NA material.

**Stratasys** is a global leader in applied additive technology solutions for industries including Aerospace, Automotive, Healthcare, Consumer Products and Education. For nearly 30 years, a deep and ongoing focus on customers' business requirements has fueled purposeful innovations—1,200 granted and pending additive technology patents to date—

that create new value across product lifecycle processes, from design prototypes to manufacturing tools and final production parts. The Stratasys 3D printing ecosystem of solutions and expertise—advanced materials; software with voxel level control; precise, repeatable and reliable FDM and PolyJet 3D printers; application-based expert services; on-demand parts and industry-defining partnerships—works to ensure seamless integration into each customer’s evolving workflow. Fulfilling the real-world potential of additive, Stratasys delivers breakthrough industry-specific applications that accelerate business processes, optimize value chains and drive business performance improvements for thousands of future-ready leaders. Corporate headquarters: Minneapolis, Minnesota and Rehovot, Israel. Online at: [www.stratasys.com](http://www.stratasys.com), <http://blog.stratasys.com> and [LinkedIn](#).

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#### **Note Regarding Forward-Looking Statements**

The statements in this press release relating to Stratasys’ beliefs regarding the benefits consumers will experience from Antero 800NA, Stratasys’ expectation on the timing of shipping Antero 800NA, and compatibility with the listed 3D printers, are forward-looking statements reflecting management’s current expectations and beliefs. These forward-looking statements are based on current information that is, by its nature, subject to rapid and even abrupt change. Due to risks and uncertainties associated with Stratasys’ business, actual results could differ materially from those projected or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to: the risk that consumers will not perceive the benefits of Antero 800NA to be the same as Stratasys does; the risk that unforeseen technical difficulties will delay the shipping of Antero 800NA; the risk that unforeseen technical difficulties will cause compatibility issues between material and machines; and other risk factors set forth under the caption “Risk Factors” in Stratasys’ most recent Annual Report on Form 20-F, filed with the Securities and Exchange Commission (SEC) on February 28, 2018. Stratasys is under no obligation (and expressly disclaims any obligation) to update or alter its forward-looking statements, whether as a result of new information, future events or otherwise, except as otherwise required by the rules and regulations of the SEC.

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