

## Applied Materials Ships 200th Producer APF System, the CVD Patterning Technology of Choice for Advanced Device Scaling

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SANTA CLARA, Calif.--(BUSINESS WIRE)--May 8, 2008--Applied Materials, Inc. announced the shipment of its 200th Applied Producer APF(R) system. Providing customers with a unique family of CVD(1) pattern transfer films, the Producer APF system has been key to enabling the extension of optical lithography to 45nm and beyond. As a result, the Producer APF has become the CVD patterning tool of record at advanced logic, DRAM and flash manufacturers worldwide.

"The Producer APF system has been one of our most successful products, achieving exponential growth as customers adopted it into volume production for an increasing number of device layers," said Derek Witty, general manager of Applied's blanket dielectric films division. "Customers continue to expand their use of our APF family of films as a critical lithography-enabling solution for device scaling in both front and back-end applications. In addition, the Producer GT platform enables a 100% improvement in APF productivity, thus significantly reducing cost of ownership."

The Applied Producer APF system is being used in nearly all advanced memory fabs for as many as ten layers of a device, employing applicationspecific APF chemistries for different patterning requirements. No other PECVD system delivers as extensive a portfolio of patterning films. Applied's family of APF films are currently in production for gate, STI, contact, capacitor formation, bitline and contact-to-source/drain patterning applications where they offer superior etch selectivity with the lowest stress and line edge roughness at the highest throughput density.

The Producer APF plays a critical role in the manufacturability of self-aligned double patterning (SADP), a process that is being employed for the 45nm generation and beyond. Applied has demonstrated an integrated SADP process for producing APF arrays as small as 22nm lines and spaces, with line edge roughness below 2nm. Applied's APF is a leading candidate for 3xnm and below hardmask applications as a result of its excellent structural properties that enable excellent CD control, without line waviness or bending. For more information, visit: www.appliedmaterials.com/products /producer\_apf\_4.html.

Applied Materials, Inc. (Nasdaq:AMAT) is the global leader in Nanomanufacturing Technology(TM) solutions with a broad portfolio of innovative equipment, service and software products for the fabrication of semiconductor chips, flat panel displays, solar photovoltaic cells, flexible electronics and energy efficient glass. At Applied Materials, we apply Nanomanufacturing Technology to improve the way people live. Learn more at www.appliedmaterials.com.

(1) CVD=chemical vapor deposition

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