



Applied Materials Extends Leadership in HDP-CVD Technology With Shipment of 1000th Process Chamber

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SANTA CLARA, Calif.--(BUSINESS WIRE)--April 27, 2000--

Chipmakers Accelerating Use of Leading HDP-CVD

System for Low (κ) FSG Process

Applied Materials, Inc., the leading supplier of CVD (chemical vapor deposition) systems to the semiconductor industry, announced that it has shipped more than 1000 Ultima HDP-CVD(TM) (high density plasma CVD) process chambers on more than 350 Centura(R) systems. The Ultima HDP-CVD Centura system is the market-leading HDP-CVD system used by chipmakers to deposit a variety of advanced dielectric films, including FSG (fluorinated silicate glass), the industry's only CVD low (κ) dielectric material used in production today.

"This significant milestone demonstrates the success of the Ultima HDP-CVD system as the industry's production workhorse for a wide range of critical CVD applications," said Dr. Farhad Moghadam, vice president and general manager of the Dielectric Systems and Modules Product Group at Applied Materials. "Part of this achievement is the result of our continuous improvement efforts that have increased the Ultima system's extensibility and value to customers.

"We are seeing a major shift to the Ultima system for shallow trench isolation and low (κ) advanced interconnect applications, including copper. The system's remarkable process technology continues to open up new capabilities for our customers, including several transistor-level dielectric applications in both DRAM and logic devices."

Numerous foundries, logic and DRAM manufacturers have qualified the Ultima HDP-CVD Centura system's FSG process for their leading edge chip designs. FSG causes significantly less signal delay in the circuit, compared to conventional silicon dioxide film, enabling up to 15 percent higher chip speeds. FSG is similar in material composition and physical properties to silicon dioxide, which allows chipmakers to implement it quickly with minimal risk. Several customers also plan to use the system's FSG film as the insulating material in their first-generation copper damascene interconnects, enabling them to extend their current CVD gap fill equipment set to the 0.13 micron device generation.

The Ultima HDP-CVD Centura is the world's leading system in the HDP-CVD segment of the dielectric CVD market, which includes applications for shallow trench isolation (STI) and intermetal dielectrics, including low (κ) FSG films. The system is currently being used by 17 of the top 20 semiconductor manufacturers worldwide.

According to Dataquest, a market research firm, the market for HDP-CVD equipment for 1999 totaled \$742 million. Dataquest forecasts the HDP-CVD market to have a compound annual growth rate of 19 percent over the next 5 years.

Applied Materials, Inc. is a Fortune 500 global growth company and the world's largest supplier of wafer fabrication systems and services to the global semiconductor industry. Applied Materials is traded on the Nasdaq National Market System under the symbol "AMAT." Applied Materials' web site is www.appliedmaterials.com.

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