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Entegris Announces New Post-CMP Cleaning Solutions for Advanced Semiconductor Manufacturing

PlanarClean® AG Products Are Optimized for Copper and Tungsten Processes at 10 nm and Below

BILLERICA, Mass., Jan. 26, 2016 (GLOBE NEWSWIRE) -- Entegris, Inc. (NASDAQ:ENTG), a leader in yield-enhancing materials and solutions for highly advanced manufacturing environments, today announced new post-chemical mechanical planarization (post-CMP) cleaning solutions for semiconductor manufacturing. The new PlanarClean® AG family of products were designed for use in 10 nm processes and below, and add to Entegris' leading portfolio of post-CMP cleaning solutions.

"Entegris has been the industry leader in post-CMP cleaning for many years. Our PlanarClean family products have been widely used in wafer fabs around the world. To address greater complexity of wafer production at the leading-edge nodes due to the addition of many new materials, such as cobalt and tungsten, we carefully re-formulated our PlanarClean solution to provide superior cleaning without damaging advanced films or new materials," said Cuong Tran, director of post-CMP cleans for Entegris. "PlanarClean AG meets the needs for advanced processes, while also conforming to new safety guidelines outlined by our customers."

The CMP process in silicon wafer production consists of a mechanical polishing step which utilizes a chemical slurry formulation to remove unwanted conductive or dielectric materials from the surface of the integrated device, achieving a flat and smooth surface upon which additional layers of integrated circuitry are built. The post-CMP cleaning step removes nanoparticles to minimize potential wafer defects while maintaining the integrity of the layers of materials already in place.

Changes to the number and types of films and materials exposed during cleaning in advanced processes have highlighted a need for specifically formulated cleans. In addition, changes to the particles used in slurries have rendered many of the traditional post-CMP cleaners ineffective and inefficient for leading-edge technologies, specifically in Front-End-of-Line (FEOL) processes. These challenges are now pushing semiconductor manufacturers to consider formulated cleans over commodity cleans.

PlanarClean AG formulated solutions meet these needs by providing one-step, superior cleaning in advanced processes that include copper, cobalt and tungsten, while protecting the underlying thin films and materials. Its proprietary formulation offers increased performance through enhanced reliability and yield, low to zero corrosion and defects and increased queue time. In addition, PlanarClean AG provides a cost-of-ownership advantage by reducing the amount of chemistry required in the cleaning step, and meets the latest EHS safety requirements for fab chemistries. The products have been successfully evaluated in multiple leading-edge fabs and are currently available to all customers.

For more information, please visit the Entegris booth at SEMICON® Korea, Hall D, Booth #5612, through Friday, January, 29th, or contact your local Entegris representative or visit www.entegris.com.

About Entegris

Entegris is a leading provider of a wide range of products for purifying, protecting, and transporting critical materials used in processing and manufacturing in the semiconductor and other high-tech industries. Entegris is ISO-9001 certified and has manufacturing, customer service and/or research facilities in the United States, China, France, Germany, Israel, Japan, Malaysia, Singapore, South Korea and Taiwan. Additional information may be found at www.entegris.com.

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