

AeonClad Coatings Deploys Next Generation Reactor to Functionalize PTFE Powder for Application Development and Commercial Testing

The company targets multiple markets and product lines with new nano-coating technology that combines coated PTFE with engineering polymers to address significant industry needs.

AUSTIN, TX -- November 12, 2012 -- AeonClad Coatings, LLC, an advanced materials company focused on improving the performance of existing products, announced today the successful commissioning of its next generation pilot reactor designed to encapsulate PTFE (polytetrafluorethylene) powders with a nano-polymeric coating. The new, state-of-the-art reactor utilizes AeonClad's patented pulse plasma-based "green" process to enhance the surface properties of individual particles in bulk powders. AeonClad used the same method in the development of outdoor apparel leader Patagonia's recently announced Encapsil™ water-repellent down technology.

The new reactor has increased AeonClad's previous production levels of PTFE coated powders by 50 times, and will give the company the materials needed to expansively grow new industry-driven applications. AeonClad Coatings is a portfolio company of Emergent Technologies, Inc., a leading innovation solutions company.

Key Markets and Business Development

The US demand for fluoropolymers is forecast to increase to \$2.4 billion in 2016 and PTFE will remain the largest and most valuable segment of the market.¹

Tony Taylor, President of AeonClad Coatings, said, "PTFE's unique lubricity, chemical inertness, and electrical properties make it a very desirable material worldwide, but difficulty in processing has always been a limitation until now. AeonClad's coating process retains PTFE's positive attributes but in a form that allows for easy incorporation into composites. Our novel and versatile coating solution meets significant industry needs. Micronized PTFE can substantially impact diverse markets in the US and abroad."

AeonClad has combined coated PTFE to polyurethane and created an affordably priced, new composite that has the same strength as untreated plastic, but with an internal lubricant for reduced friction and wear. Potential uses for coated PTFE range from rubber composites for automotive suspension and drive belts to high-speed electronic materials for communications.

"AeonClad's next generation reactor creates unlimited opportunities for companies and entrepreneurs across multiple segments to access a cutting-edge technology to improve a core product or launch a new business," stated Emergent Technologies CEO, Thomas Harlan. "We believe plasma coating PTFE is the next platform to deliver greater success to AeonClad, its partners and stakeholders."

Sample quantities of functionalized PTFE are now available for testing by industry and end-users. In addition, technical data can be provided for resin formulations including polyurethane and epoxy systems. For more information, contact info@aeonclad.com.

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About AeonClad Coatings

Austin-based AeonClad Coatings is an advanced materials company focused on improving the performance of existing products for new applications. Founded on the pioneering research of Dr. Richard Timmons and his team at the University of Texas, Arlington, the AeonClad Coatings proprietary plasma deposition technology offers a single-step, solvent-free process for producing highly controlled conformable films with precisely defined chemistries. The technology enables the deposition of specific functional groups on surfaces of almost any substrate, dimension or activity. AeonClad's novel nanotechnology innovation adds value to consumer, industrial and healthcare products that require precise, reproducible coating methods. For more information, visit the company website www.aeonclad.com.

AeonClad Coatings is a portfolio company of Emergent Technologies, Inc., a leading innovation solutions company that transforms game-changing scientific discoveries into market-driven products.

About Emergent Technologies, Inc.

Headquartered in Austin, Texas, Emergent Technologies, Inc. (Emergent) utilizes its innovation-based, partner-driven model to identify, manage, develop and bring to market game-changing scientific discoveries. Emergent's diverse business and technical team along with its unique innovation process of transforming scientific breakthroughs into technology platforms with multiple applications, maximizes the value of promising ideas and underutilized intellectual properties without the risk associated with commercial development. Emergent applies its experience and expertise to provide investors, entrepreneurs, communities and industry partners access to innovative solutions to advance initiatives and protect and grow core businesses with novel, differentiating technology. For more information, visit the Emergent website www.emergentechnologies.com

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Reference:

1. "Fluoropolymers to 2016 – Demand and Sales Forecasts, Market Research, Market Share, Market Leaders," The Freedonia Group, August 2012.

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