

# From cotton to polymers, new Clemson center focuses on industry's future

By John Staed

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Shown are ropes made of special lightweight fibers developed by Innegrity in Greer.

CLEMSON UNIVERSITY — CLEMSON – An effort to revive a dying industry – textile manufacturing – is showing up these days in everything from material to help burn victims to airline fabrics.

At Clemson University, it's a focus that has resulted in numerous research efforts, and now includes the new Advanced Fiber-based Materials Center of Economic Excellence.

The center, funded through \$4 million in private donations and \$4 million in state matching dollars, will bring together Clemson's different research departments and private industries to find ways to make improved or new polymer-based materials, officials said Wednesday.

The new center will create the J.E. Serrine Textile Foundation Endowed Chair in Advanced Fiber-based Materials. It will create not only that position, but will add student fellowships, post-doctorate positions, and internships for students entering the field, said Clemson President James Barker at a press conference to announce the center.

The center will focus on research to develop advanced synthetic polymers and enhance natural materials such as wool, cotton and silk. It also will conduct research on fiber-reinforced materials based on metals, ceramics and polymers for use in automotive, athletic equipment and medical materials.

Barker said the work goes to the beginning of Clemson's research work, noting that it started with cotton materials.

"No field of research at Clemson has a longer thread than fiber-based materials," Barker said.

School of Materials Science and Engineering Director Kathleen Richardson said the

fiber field is a traditional business that “has an exciting future” From factory spool to material for Kevlar, it is the future of the business, she said.

The new chair, once hired, will work with industry to help develop new technology, which can create new jobs, said Richardson.

The new center doesn’t have a physical building at the university, but is “an interdisciplinary effort” housed largely in the materials science area, but includes a wide range of research across the Clemson campus. Research at Clemson already has resulted in spin-off companies, including Simpsonville-based Kentwool, which donated to the new center.

Kentwool CEO Mark Kent said partnering with Clemson allows the company to tap world-class researchers at the university. His company, which has worked with Clemson for 20 years, makes materials that emergency responders can use as a “second skin” for burn victims and yarn that is burn resistant and lightweight for aircraft and other transportation uses.

“When you are a small size company, you need to partner with a research university,” Kent said.

A search for the new chair is continuing, and the creation of the center should draw a top researcher, Barker said.

“We expect this new center will enhance Clemson’s reputation,” said Esin Gulari, dean of the Clemson College of Engineering and Science. The center will help “provide products for improved life for everyone,” she said.

Other donors for the new center include the J.E. Serrine Textile Foundation, Kentwool, Brian and Amanda Morin, Mettler Toledo, Inman-Riverdale Foundation, Carey Jordan and Brian Simmons, X-Rite Inc., Mr. and Mrs. Jack McCall, Elizabeth Rivers estate, Glen Raven, Frankl & Thomas Inc., and two anonymous donors.