# Klopman Bases New Sungazer 180 Fabric for PPE Clothing on Fortron® PPS Fibers from Celanese

# Lightweight, Inherently Flame and Chemical Resistant

Sulzbach, Germany, Florence, Ky., Shanghai, PR China, Nov. 26, 2013 – Fibers made with Fortron® polyphenylene sulfide (PPS) fibers from Celanese Corporation (NYSE: CE), the global technology and specialty materials company, are woven into Klopman International's newest fire resistant textile technology — the Sungrazer 180 lightweight fabric that provides reliable protection for the Personal Protection Equipment (PPE) clothing industry.

The new Sungrazer 180, a light weight option (185 g/m.) to the mid-weight Sungrazer version (260 g/m.), is part of the innovative Klopman fabric line that first incorporated Fortron PPS fibers in 2010. Fortron PPS from Celanese is combined with a high content of PROBAN® flame resistant (FR) treated cotton, to maximize the inherently flame retardant property benefits of the polyphenylene sulfide.

High-temperature Fortron PPS fiber spinning grades excel in protective clothing applications. Fortron PPS provides a very high continuous service temperature — up to 192 degrees Celsius (377.6 degrees Fahrenheit) and up to 240 degrees Celsius (464 degrees Fahrenheit) for incidental exposure. High-temperature stability, combined with outstanding chemical and solvent resistance, means Fortron PPS fiber spinning grades are an ideal choice in various industries, including chemical, pharmaceutical, automotive, consumer and household goods.

Sungrazer 180 fabric, based on a balanced blend of 41 percent Fortron PPS and 58 percent flame retardant-treated cotton and 0.5 percent anti-static material, provides excellent tear strength with a natural degree of elasticity, extremely high shape retention

and good durability based on excellent abrasion resistance. The result: A high degree of comfort, even after repeated industrial laundering.

Synthetic fibers have revolutionized the clothing industry. Today, synthetic fibers for specialty leisure, sport and work clothing provide distinguishing properties — from elasticity and durability to low weight and high comfort and even protection against specific substances and extreme temperatures. Fortron PPS is positioned for use in extreme cases and with good reason.

The ideal combination of protection and flexibility is the most important requirement for workwear in some jobs. Workers in contact with heat or fire, chemicals, oils or similar substances need special workwear protection that still allows them to move freely.

### Sungrazer – Fabric for Multifunctional Protection

Klopman International, one of the major European producers of polyester/cotton blended fabrics for work and protective wear, developed its first Fotron PPS high performance multifunctional fabric with Celanese in 2010. The original Sungrazer 260g/m2 high-performance fabric uses a blend of 40 percent Fortron PPS, 59 percent flame retardant-treated cotton and 0.5 percent anti-static material. Protective clothing made with the lighter the new Sungrazer 180 is more comfortable to wear, especially in high-temperature surroundings, and provides improved breathability — all without losing any of its excellent chemical properties. Shrinkage properties remain very good.

Certified for heat, flame and anti-static protection, it can be combined in a single fabric and used at high temperatures. This fabric is certified with:

• European Norm (EN) International Organization For Standardization (ISO) 11612 Clothing for protection against heat and flame

• EN 1149-5 Protective clothing — electrostatic properties

**Excellent Starting Product – Reliable Final Product** 

Proven in harsh environments, Fortron PPS is chemical and temperature resistant and are inherently flame retardant. Staple and multifilament fibers, as well as nonwoven fabrics of superb quality, are manufactured with the Celanese line of Fortron PPS spinning grades designed for a wide variety of demanding uses. In addition to protective and safety textiles, these applications include filtration, electrical and hightemperature insulation, composites and rubber reinforcement, and fire barriers.

#### About Celanese

Celanese Corporation is a global technology leader in the production of differentiated chemistry solutions and specialty materials used in most major industries and consumer applications. With sales almost equally divided between North America, Europe and Asia, the company uses the full breadth of its global chemistry, technology and business expertise to create value for customers and the corporation. Celanese partners with customers to solve their most critical needs while making a positive impact on its communities and the world. Based in Dallas, Texas, Celanese employs approximately 7,600 employees worldwide and had 2012 net sales of \$6.4 billion. For more information about Celanese Corporation and its product offerings, visit www.celanese.com or our blog at www.celaneseblog.com.

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