Celstran® LFRT from Celanese Helps Fans from ebm-papst Supply Fresh Air in Commercial Kitchens, Offices and Factories

*Outstanding Mechanical Properties Improve Performance*

Sulzbach, Germany, Florence, Ky., Shanghai, PR China, Oct. 16, 2013 – Indispensable in commercial kitchens, offices and factories, the new RadiCal fan series produced by ebm-papst uses radial fan impellers made with Celstran® long fiber reinforced thermoplastics (LFRT) from Celanese Corporation (NYSE: CE), the global technology and specialty materials company.

Celstran LFRT, a composite made from a thermoplastic polypropylene (PP) matrix and unidirectional long glass-fibers for outstanding stability, is the ideal material for the RadiCal fan impellers that have a complex architecture, which is exposed to high mechanical loads. The glass fiber reinforced polymer combines high strength, lightness and unlimited moldability to enable flow-optimized blade geometries, and provides UV protection, chemical resistance and extremely good impact strength without the need for additional treatment.

The new RadiCal fan series, without spiral housing, was developed with GreenTech EC motors, backward curved blades and a high level of hydraulic efficiency. It has the same dimensions as its predecessor with asynchronous motor, which the new version can replace with little effort.

**Low Noise with High Efficiency**

ebm-papst, a worldwide innovation leader in fans and motors with over 14,500 different products headquartered in Germany, used simulation models to optimize the impeller shape. Models were compared to measurements on prototypes to avoid great cross-sectional jumps and flow losses in the finished model. This step in the developmental
phase, coupled with the excellent damping characteristics of the Celstran LFRT-PP, helped reduce the noise level generated by the fan.

Celstran LFRT demonstrates its versatility in this application:

- Chemical resistance
- Temperature tolerance
- High impact and notched impact strength
- Very low creep and warpage

These outstanding mechanical properties contribute to improved performance and extend the service life of the RadiCal fan.

**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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Outstanding Mechanical Properties — Celstran® long fiber reinforced thermoplastics (LFRT) from Celanese helps improve radial impeller geometry in new RadiCal fan produced by ebm-papst.