

Solvay Unveils Super-Fine and Ultra-Fine KetaSpire® PEEK Powders for Coatings and Thermoplastic Pre-Preg

New PEEK Grades Offer Particle Size Down to 10 Microns for Demanding Applications in Chemical Processing, Aerospace, and Oil and Gas

ALPHARETTA, Ga., September 10, 2013 – Solvay Specialty Polymers has announced the commercial introduction of new super-fine powder (SFP) and ultra-fine powder (UFP) grades of KetaSpire[®] polyetheretherketone (PEEK) for water-borne coatings, powder coatings, and resin pre-impregnation of continuous fiber composites. These new KetaSpire[®] PEEK powders provide excellent strength, durability, and chemical resistance for demanding applications in chemical processing, oil and gas, aerospace, semiconductor, healthcare, transportation, and other industrial uses.

"Since PEEK is a semi-crystalline resin and is very difficult to dissolve in common solvents, the application of coatings from solution is not a viable process option," explained Jamal El-Hibri, principal scientist for Solvay Specialty Polymers. As a result, the most useful techniques for PEEK in coating applications are the use of waterborne media in which the PEEK powder is in suspension or the use of air-borne coating processes using techniques such as fluidized beds or electrostatic powder spray guns. For all these techniques, fine particle size is required to achieve a uniform high-quality coating with good structural integrity. Solvay's KetaSpire® SFP grades have a nominal median particle size of 30 microns while UFP grades provide the finest possible particle size with a nominal median particle size of 10 microns.

In addition to coatings, another major application area for KetaSpire® SFP and UFP powders is the solvent-less pre-impregnation of continuous carbon fiber and other continuous fiber reinforcements, with PEEK resin as a thermoplastic matrix. This is achieved through an electrostatic powder coating process and the finest possible particle size allows for good coating, even distribution, and uniform melting of the PEEK resin around the reinforcement.

Solvay's super-fine PEEK powder offering includes KetaSpire® KT-880 SFP, a high-flow grade, and KetaSpire® KT-820 SFP, a low-flow version. The ultra-fine PEEK powder line includes KetaSpire® KT-880 UFP, a high-flow grade, and KetaSpire® KT-820 UFP, a low-flow material. All four grades are unreinforced and supplied in a natural color.

The new PEEK powder grades are commercially available and sampling is currently underway in a range of application areas.

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About Solvay Specialty Polymers

Solvay Specialty Polymers manufactures over 1500 products across 35 brands of high-performance polymers – fluoropolymers, fluoroelastomers, fluorinated fluids, semi-aromatic polyamides, sulfone polymers, aromatic ultra polymers, high-barrier polymers and cross-linked high-performance compounds – for use in Aerospace, Alternative Energy, Automotive, Healthcare, Membranes, Oil and Gas, Packaging, Plumbing, Semiconductors, Wire and Cable, and other industries. Learn more at www.solvay.com.

As an international chemical group, <u>SOLVAY</u> assists industries in finding and implementing ever more responsible and value-creating solutions. The Group is firmly committed to sustainable development and focused on innovation and operational excellence. Solvay serves diversified markets, generating 90% of its turnover in activities where it is one of the top three worldwide. The group is headquartered in Brussels, employs about 29,000 people in 55 countries and generated 12.4 billion euros in net sales in 2012. Solvay <u>SOLB.BE</u>) is listed on <u>NYSE Euronext</u> in Brussels and Paris (Bloomberg: <u>SOLB.BB</u>) - Reuters: <u>SOLBt.BR</u>).

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