

Solvay's High-Performance Torlon® PAI Enables Performance Plastics to Mold Tough, Durable Scraper Tools Safe Enough for Use in Aerospace Applications

Paris, France. – March 16, 2017 --- Solvay, a leading global supplier of specialty polymers, today announced at JEC World 2017 (Hall 5A, Booth L42) that its high-performance Torlon® polyamide-imide (PAI) enabled Performance Plastics Ltd., an advanced injection molder of precision engineered components, to innovate its new line of EnduroSharp™ Scraper Blades for aerospace maintenance applications. Torlon® PAI enabled these unique new tools to be tough enough to maintain their edge longer than blades molded from competitive polymers, but safe enough to remove challenging materials from delicate surfaces.

“Designing a scraper blade that is both safe and effective for today’s aircraft is a deceptively simple challenge,” said Tom Mendel, president of Performance Plastics. *“Polymers were obviously a safer choice over metal blades, but only Torlon® PAI met all of our criteria without some tradeoff in design, cost, performance or processing. Solvay’s material allowed us to develop a new generation of molded scraping tools that uniquely combined high strength and stiffness, a sharp edge, machinability and strong resistance to heat, wear and chemicals.”*

The recently launched Torlon® PAI blade handles and inserts enable aerospace maintenance professionals to safely remove elastomeric coatings, boots, tapes, sealants, adhesives, gap fillers and tape residue from fiber-reinforced composite, plastic, glass, ceramic or metal substrates and fasteners. The PAI blades can also be used in conjunction with heat- or chemical-assisted skiving processes to expedite material removal.

Torlon® PAI combines the exceptional performance of thermoset polyimides with the melt-processing advantage of thermoplastics. While polyetherimide (PEI) and polyetheretherketone (PEEK) were candidates for this application, both materials needed to be machined from molded blanks to give the blade a sharp edge. In comparison, Torlon® PAI’s excellent processability allows the blades to deliver a sharp edge right out of the mold – eliminating the time, cost and material waste of machining. Solvay’s material, however, can be machined to permit one-off designs, such as blades that incorporate a gap to scrape around fasteners. Torlon® PAI’s thermoset-like properties also allows EnduroSharp™ blades to withstand the high heat and friction of reshaping, which can result in a burr on blades fabricated from PEEK and PEI polymers.

Select grades of Solvay’s Torlon® PAI retain toughness, high strength and high stiffness at temperatures up to 275°C (525°F) and the material’s broad chemical resistance extends to strong acids, most organics and commercial aerospace fluids and solvents.

Scheduled to run from March 14 to 16 at the Paris Nord Villepinte Exhibition Centre, JEC World 2017 is the largest composites show in the world, and covers the whole composites value chain from raw materials to processors and final products.

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About Performance Plastics Ltd.

Founded in 1982 in Cincinnati, Performance Plastics Ltd. has partnered closely with customers to leverage the performance advantages of high temperature thermoplastics.

The company offers deep expertise in molding specialty polymers, such as PEEK, PAI, PEI, fluoropolymers and other high performance thermoplastic compounds. It has a long history of collaborating with world class polymer scientists and industry-leading material suppliers to develop unique custom resin formulations targeting markets ranging from medical, industrial, oil and gas, automotive and aerospace. Learn more at <http://performanceplastics.com>.

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-high performance 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 & Cable, and other industries. Learn more at www.solvayspecialtypolymers.com.

About Solvay

Solvay is a multi-specialty chemical company, committed to developing chemistry that addresses key societal challenges. Solvay innovates and partners with customers in diverse global end markets. Its products and solutions are used in planes, cars, smart and medical devices, batteries, in mineral and oil extraction, among many other applications promoting sustainability. Its lightweighting materials enhance cleaner mobility, its formulations optimize the use of resources and its performance chemicals improve air and water quality. Solvay is headquartered in Brussels with around 27,000 employees in 58 countries. Pro forma net sales were € 10.9 billion in 2016, with 90% from activities where Solvay ranks among the world's top 3 leaders. Solvay SA (SOLB.BE) is listed on Euronext Brussels and Paris (Bloomberg: SOLB.BB - Reuters: SOLB.BR) and in the United States its shares (SOLVY) are traded through a level-1 ADR program.

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Solvay's high-performance Torlon® polyamide-imide (PAI) enabled a new line of EnduroSharp™ Scraper Blades from Performance Plastics Ltd. that are tough enough to maintain their edge longer than blades molded from competitive polymers, but safe enough to remove challenging materials from delicate surfaces. (Photo courtesy of Performance Plastics).