

## **Solvay to Showcase its Specialty Polymers Offering for Advanced Automotive Drive and Transmission Systems at China's 3<sup>rd</sup> CTI Symposium**

*High-Performance Aromatic Materials at the Forefront of Innovative Down-Speeding, Fuel-Saving and Metal-Replacing Solutions*

**Suzhou, PR China, September 17, 2014** – Solvay Specialty Polymers is attending the 13<sup>th</sup> International Car Training Institute (CTI) Symposium on Automotive Transmissions, HEV and EV Drives, held for the third time in China this year to share the latest advances, trends and developments in this market segment. Above all, the company's exhibit will showcase leading-edge solutions for sealing, bearing and pump applications that help to save weight, enhance fuel efficiency and reduce CO<sub>2</sub> emissions in higher-performance continuous velocity, automatic and dual-clutch transmission systems (CVT/AT/DCT). Further benefits derived from Solvay's Torlon® and Spire® ultra-performance polymers in these applications include a wide design window for part consolidation and metal replacement, also resulting in reduced noise, vibration and harshness (NVH), lower friction losses as well as cost savings and longer service life.

"Transmission has become an increasingly dynamic automotive segment in China. Worldwide transmission market growth forecasts are around 3% (CAGR 2014-2018), whereas growth in China is expected to be around 7% for all types of transmission and above 20% for DCT and CVT. For these demanding drivetrain systems, we offer our customers a wide range of high-performance products and services to meet future CO<sub>2</sub> regulations," says Muriel Ginollin, Global Market Manager Solvay Specialty Polymers.

In this portfolio, Solvay's line-up of aromatic materials has an ideal fit in helping automotive OEMs to achieve two of their most important goals today – improve the fuel economy and the CO<sub>2</sub> balance of their vehicle families. In close collaboration with AT and DCT design engineers, for instance, Solvay specialists are working on solutions focused on increasing the number of gears to eight, and on tapping the potential for higher torque levels enabling longer gear ratios for lower engine operation speeds. In this "down-speeding" environment, however, temperatures as well as friction pressures and velocities are increasing, which requires materials with a high glass transition temperature (T<sub>g</sub>), such as PEEK or polyamide-imide (PAI) resins capable of operating at elevated temperatures while also tolerating high pressure-velocity (PV) factors.

In addition to requiring higher tribological and thermal performance, more gears result in size constraints which call for solutions such as replacing metal needle bearings with polymeric thrust washers that also provide a reduction in weight as well as in noise, vibration and harshness (NVH) for enhanced driving comfort. Other applications highlighting the powertrain efficiency and further benefits to be gained from Solvay's range of Torlon® polyamide-imide (PAI), KetaSpire® polyetherether ketone (PEEK) and AvaSpire® polyarylether ketone (PAEK) ultra-performance polymers include sealing rings for improved clutch responding time in DCT systems, low NVH and reduced friction losses.

With the highest strength and stiffness of any thermoplastic available up to 275°C, Torlon® PAI has outstanding resistance to wear, creep, and chemicals, including strong acids and most organics, and is ideally suited to severe service conditions. KetaSpire® PEEK complements this property profile in powertrain components with excellent strength, superior fatigue resistance and a continuous-use temperature of 240°C. Furthermore, Solvay's ultra-performance polymers exhibit exceptional performance in harsh environments even at extremely high PV factors of up to 4,000,000 psi\*in/min (140 MPa\*m/s), in combination with coefficients of linear thermal expansion (CLTE) similar to those of metals.

"Advanced automotive drive and transmission systems have an immediate impact on fuel and energy efficiency," adds Echo Pan, Sales Development Manager for Solvay Specialty Polymers in China. Our high-performance materials and comprehensive customer support can make a significant contribution to this end by speeding the time-to-market of innovative light-weighting, downsizing and down-speeding applications. Next to our extensive product line, we support our customers in the Chinese automotive industry with a complete service package from concept to start of production, including CAE, moldflow optimization, prototyping and production trial runs."

In response to increasing demands in the Chinese market, Solvay opened a new performance polymer compounding plant at Changshu (Jiangsu province) in 2012. The company also expanded its supply chain by adding several new warehouse locations, globally, including one each in China, Singapore, Japan and South Korea. "These investments underscore our strong commitment to Asian markets, placing our specialty polymers at the doorstep of fast-growing customers in the region," added Muriel Ginollin.

During this year's CTI Symposium, held from September 17 through 19, 2014, at the Kempinski Hotel in Suzhou's Industrial Park, material and market specialists from Solvay will be available to discuss important new developments and trends with other major players in the automotive and transmission industry in Greater China and beyond, and to illustrate the advantages of the company's high-performance polymers for advanced design, profitable manufacture and sustainable end use in this demanding application sector.

# # #

® Registered trademark of Solvay

#### 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 & Gas, Packaging, Plumbing, Semiconductors, Wire & Cable, and other industries. Learn more at [www.SolvaySpecialtyPolymers.com](http://www.SolvaySpecialtyPolymers.com).

Solvay ([www.solvay.com](http://www.solvay.com)) is an international chemical Group committed to sustainable development with a clear focus on innovation and operational excellence. It is realizing over 90% of its sales in markets where it is among the top 3 global leaders. Solvay offers a broad range of products that contribute to improving quality of life and the performance of its customers in markets such as consumer goods, construction, automotive, energy, water and environment, and electronics. The Group is headquartered in Brussels and its companies, which employ about 29,400 people in 56 countries, generated EUR 9.9 billion in net sales in 2013 (pro forma). Solvay SA is listed as **SOLB** on NYSE Euronext ([www.euronext.com](http://www.euronext.com)) in Brussels and Paris. Bloomberg ([www.bloomberg.com](http://www.bloomberg.com)) = **SOLB:BB**. Reuters ([www.reuters.com](http://www.reuters.com)) = **SOLB.BR**.

#### Press Contacts

Jun Wu  
Solvay Specialty Polymers  
+86 21 2350 1326  
[jun.wu@solvay.com](mailto:jun.wu@solvay.com)

Frances Ma  
Scott PR China  
+86 (21) 6027 6722  
[frances.ma@scottpr.cn](mailto:frances.ma@scottpr.cn)

Alberta Stella  
Solvay Specialty Polymers  
+39 02 2909 2865  
[alberta.stella@solvay.com](mailto:alberta.stella@solvay.com)

Alan Flower  
Industrial Media Relations  
+32 474 117 091  
[alan.flower@indmr.com](mailto:alan.flower@indmr.com)



*Torlon® PAI and KetaSpire® PEEK offer outstanding wear, creep and chemical resistance for demanding powertrain applications, such as space and weight saving clutch sealing rings, automatic transmission trust washers etc*

(Photo courtesy Solvay)