

## Solvay High-Performance Polymers Prove Compatible With Ford's New ULV 25 Automatic Transmission Fluid

*Broad selection of automotive polymers from Solvay retain mechanical properties after prolonged exposure to Ford's ultra-low viscosity ATF*

**Berlin, Germany, Dec. 8, 2015** – Solvay Specialty Polymers, a leading global supplier of high-performance polymers, announced today at the 14<sup>th</sup> annual CTI Symposium (Booth H06) that recent research confirmed that several grades from Solvay's Torlon<sup>®</sup> polyamide-imide (PAI), KetaSpire<sup>®</sup> polyetheretherketone (PEEK) and Amodel<sup>®</sup> polyphthalamide (PPA) polymer lines demonstrate strong compatibility with Ford's new ultra-low viscosity ULV 25 automatic transmission fluid (ATF). The study builds on past research demonstrating that Solvay's polymers are compatible with common ATFs from other industry-leading automakers.

In its latest research, Solvay focused on Ford's ATF ULV 25 (specification #WSS-M2C949-A), which is a free-flowing fluid that enables automatic transmissions to operate more efficiently. The study used ISO tensile bar samples and ASTM compression blocks molded from six grades of Solvay's high-performance polymers to measure changes in mechanical properties after controlled exposure to Ford's ATF. The grades tested were:

<i>Grade</i>	<i>Polymer</i>	<i>Description</i>
Torlon <sup>®</sup> 4203	PAI	High-strength, unfilled
Torlon <sup>®</sup> 4275	PAI	Wear-resistant, designed for high speeds
Torlon <sup>®</sup> 4301	PAI	Wear-resistant, high compressive strength
KetaSpire <sup>®</sup> KT-880 SL30	PEEK	Wear-resistant, high melt flow
Amodel <sup>®</sup> A-1133	PPA	33% glass fiber, heat stabilized
Amodel <sup>®</sup> AT-6130 HS	PPA	30% glass fiber, toughened

Samples tested after 500, 1,000 and 1,500 hours of exposure to ATF ULV 25 showed that the Torlon<sup>®</sup> PAI and KetaSpire<sup>®</sup> PEEK grades categorically exhibited excellent resistance to Ford's ATF ULV 25. The chemical and wear resistance of these Solvay materials is widely recognized by the automotive industry, making them excellent candidates for use in transmission applications, such as bearing cages, seal rings, check balls, fork shift levers, pads, thrust bearings and thrust washers.

The Amodel<sup>®</sup> PPA grades showed mild losses in tensile and flexural strength after 1,500 hours of exposure to the fluid, which appeared to taper off as testing progressed. Both Amodel<sup>®</sup> grades showed minimal change in compression stress throughout the duration of the study. Solvay's PPAs show higher retention of mechanical properties compared to PA 6.6, indicating their added value in solenoid, sensor and spacer applications, as well as electronic drivetrain components.

"Solvay Specialty Polymers is committed to offering automakers a diverse selection of advanced material lightweighting solutions to help them improve the efficiency of their transmissions and explore new possibilities for electrification of the drivetrain," said Brian Baleno, global automotive business development manager for Solvay Specialty Polymers. "This study further underscores that commitment by proactively validating our polymers' chemical resistance with a leading ATF, and giving our customers the confidence to innovate new solutions with highly reliable, industry-leading materials."

Solvay launched its latest study prior to adding the Ryton<sup>®</sup> family of polyphenylene sulfides (PPS) to its high-performance polymer portfolio. Today, Solvay's Amodel<sup>®</sup> PPA and Ryton<sup>®</sup> PPS materials are helping to introduce new design options in electronic transmission components. Solvay's Torlon<sup>®</sup> PAI, KetaSpire<sup>®</sup> PEEK, AvaSpire<sup>®</sup> polyaryletherketone (PAEK) and Tecnoflon<sup>®</sup> fluoroelastomers are helping to improve the efficiency of automotive transmissions by reducing frictional losses in sealing components.

Held in Berlin's Estrel Hotel from December 7-10, the 14<sup>th</sup> Annual International CTI Symposium and its adjoining exhibition is the international industry event for professionals seeking the latest developments in automotive transmissions and drives for passenger cars and commercial vehicles.

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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-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](http://www.solvayspecialtypolymers.com).

As an international chemical group, **SOLVAY** assists industries in finding and implementing ever more responsible and value-creating solutions. Solvay generates 90% of its net sales in activities where it is among the world's top three players. It serves many markets, varying from energy and the environment to automotive and aeronautics or electricity and electronics, with one goal: to raise the performance of its clients and improve society's quality of life. The group is headquartered in Brussels, employs about 26,000 people in 52 countries and generated 10.2 billion euros in net sales in 2014. Solvay SA (**SOLB.BE**) is listed on **NYSE EURONEXT** in Brussels and Paris (Bloomberg: **SOLB:BB** - Reuters: **SOLB.BR**).

#### Press Contacts

##### Aaron Wood

AH&M Marketing Communications  
+1 413 448 2260 Ext. 470  
[awood@ahminc.com](mailto:awood@ahminc.com)

##### Maria Witbrod

Solvay Specialty Polymers  
+1 770 772 8451  
[maria.witbrod@solvay.com](mailto:maria.witbrod@solvay.com)

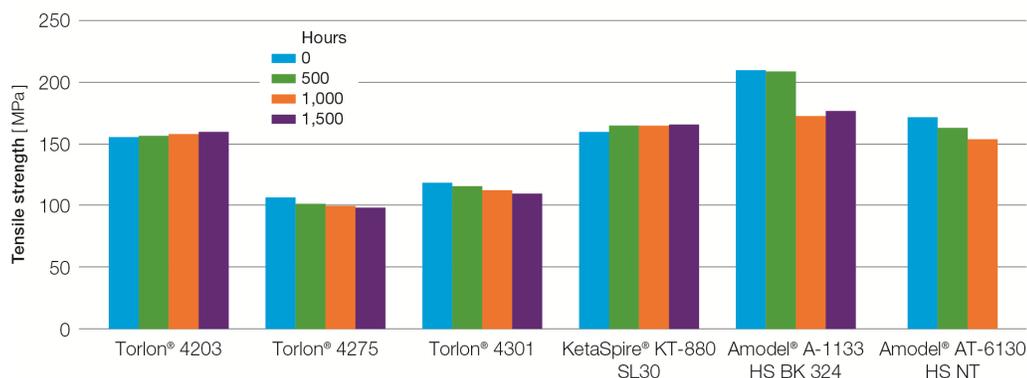
##### Alan Flower

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

##### Alberta Stella

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

#### Retention of tensile strength after 1,500 hours exposure to ATF ULV 25



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