

Solvay's Advanced Part Testing Capabilities Helps MAHLE Develop Innovative Oil Filter Modules Using Technyl® Polyamides

Solvay has Developed Customized Test Benches for the Automotive Industry

LYON, France, November 6, 2014 – Solvay Engineering Plastics, a global leader in advanced polyamide solutions, has been collaborating with MAHLE, one of the world's foremost suppliers of high-quality automotive systems, in the development of oil filter modules using Technyl® polyamide resins.

"Reliable oil management is critical in modern automotive engineering and must ensure that lubricants are properly supplied, cleaned and thermally managed," says Ralf Kiemlen, Head of Development Oil Filtration Systems at MAHLE Filtersysteme GmbH. "The development and production of complex oil filter modules has long been one of our core competencies and the use of high-performance plastics such as Technyl has opened a wide design window for part consolidation and functional integration."

Technyl® compounds are used on more than 15 different MAHLE oil modules on the road, today. All of them underwent rigorous testing including long-term ageing resistance in glycol flow according to major OEM specifications and were fully validated in close collaboration with the customer. *"Solvay's experience and part testing laboratory plays an essential role in validating the modules' required in-use performance"* adds Mr. Kiemlen.

Most of Solvay's bench tests are developed in close collaboration with OEMs and major automotive system suppliers. The current glycol flow test benches at the company's Technyl® Innovation Centre in Lyon, France, are capable of testing as many as six parts at a time in temperatures of up to 135°C and with oil under static pressure. A new glycol bench will offer the possibility to perform, in parallel, high flow glycol and oil circulation tests at even higher pressures and temperatures.

"We have been supporting MAHLE in many innovative projects for years and are continuously expanding our part testing capabilities to cover even more aspects raised by leading OEMs. This is part of our advanced support package designed to help develop more efficient thermal management components," states Laurent Perret, Application Laboratory Manager for Solvay Engineering Plastics. *"In February 2015, we will be able to manage two flows of media simultaneously, at 150°C with pulsated pressure of up to 10 bar on the glycol side and 16 bar on the oil side."*

In addition – and mandatory not just for oil modules – Solvay also offers vibration testing in dedicated shaker equipment furnished with a thermal chamber for temperatures ranging from -35°C to +180°C and capable of test frequencies from 5 to 2.000 Hz. Other available equipment includes a dynamic tensile device for final part testing with a load up to 30kN and hot air pulsated pressure bench reaching air temperatures of up to 220°C.

Solvay's powerful processing and part trial facilities supplement the comprehensive and differentiated Technyl® Force product and service offering which includes MMI Technyl® Design for CAE simulations and Sinterline™ Technyl® powders for rapid prototyping.

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About MAHLE

With its three business units Engine Systems and Components, Filtration and Engine Peripherals, as well as Thermal Management, MAHLE ranks among the top three automotive systems suppliers worldwide. All of the Group's non-automotive activities are combined in the Industry business unit with products from the application areas of large engines, filtration, and thermal management for industrial purposes. The Aftermarket business unit serves the independent parts market with MAHLE products in OE quality.

MAHLE has a local presence in all major world markets. In 2014, some 64,000 employees at over 140 production locations and 10 major R&D centers are expected to generate sales of around EUR 10 billion. Visit www.mahle.com for further information.

About Solvay Engineering Plastics

Solvay Engineering Plastics is the global specialist in polyamide-based engineering plastics, with more than 60 years of experience in the development, manufacture and marketing of a complete range of high-performance materials under the Technyl® brand for demanding applications in automotive, electrical and electronics, construction, consumer goods and other markets. With a growth strategy bolstered by six production sites worldwide, Solvay Engineering Plastics employs its expertise and innovation capabilities in order to serve the needs of its customers more closely through a global network of technical and R&D centres. Learn more on Technyl® brand at www.technyl.com.

About Solvay

Solvay (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) in Brussels and Paris. Bloomberg (www.bloomberg.com) = **SOLB:BB**. Reuters (www.reuters.com) = **SOLB.BR**.

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Photo caption: Oil filter elements from MAHLE moulded in high-performance Technyl® resins from Solvay



Photo caption: Advanced part testing facilities at Solvay's Technyl® Innovation Centre in Lyon, France.

(Photos courtesy of MAHLE and Solvay SA)