

Solvay to Deliver Technical Presentation on New High-Heat Amodel® PPA for Engine Cooling Components at ITB Automotive Conference in Novi, Mich.

ALPHARETTA, Ga., June 4, 2013 – Solvay Specialty Polymers, a leading global supplier of high-performance thermoplastics for the automotive industry, will deliver a technical presentation on its new high-heat semi-aromatic polyamides for engine cooling components at the upcoming ITB Automotive Engine Air and Cooling Systems 2013 conference on June 6 at the Sheraton Detroit Novi Hotel in Novi, Mich. The technical conference, sponsored by global automotive consultancy The ITB Group Ltd., will present and explore key issues related to air induction systems and component developments, turbo charging, charge air cooling, exhaust gas recirculation, engine cooling developments, and material.

William Gaines, automotive business development manager for Solvay Specialty Polymers, will present “Stretching the Boundary of Downsizing Technology with High-Performance Thermoplastics.” The presentation will discuss how engine downsizing has placed high-temperature demands on air induction components, especially those components between the turbocharger compressor exit and the hot side charge air cooler housing. Coupled with tighter engine packaging, the temperatures on the compressor exit can exceed the thermal capabilities of traditional metal-replacement materials, according to Solvay.

To facilitate these metal-replacement opportunities, Solvay has developed high-heat grades of Amodel® PPA that are designed to work at continuous-use temperatures ranging from 210°C to 240°C (410°F to 464°F). The new high-heat grades have been launched to meet the demands of new highly downsized turbocharged engines that have been introduced to reach a balance between emissions compliance, CO₂ reduction, and consumer performance preference.

Amodel® A-4133 HH (33% glass reinforced) and Amodel® A-4145 HH (45% glass reinforced) PPA resins deliver better long-term thermal stability than competitive polyamide-based materials and polyphenylene sulfide (PPS). Testing shows 75% retention of tensile strength after heat aging for 3000 hours at 230°C (446°F) and 1000 hours at 250°C (482°F).

Both new high-heat semi-aromatic materials provide the broad chemical resistance that is typically expected from a PPA. Both materials crystallize quickly, resulting in a 10% cycle time reduction versus other PPA and PPS materials. High-heat Amodel® PPA grades can also be processed on water-heated injection molding tools.

Other key benefits include better resistance to exhaust gas condensate compared to nylon 6 and nylon 4,6 and the ability to produce high-temperature components in tooling made for standard polyamides. The materials are also more robust than competitive polyamides in withstanding acidic exhaust gases which result from the latest low-pressure loop-EGR technologies for reduced emissions.

High-heat Amodel® PPA grades are being tested by many OEMs and Tier 1 suppliers in a range of applications and they are available for global sampling. A primary application is hot side air charger cooler housings.

Amodel® PPA is one of the industry's most specified materials for automotive applications where heat, humidity, and chemical resistance are major considerations. It has successfully replaced die-cast aluminum for over

20 years and is known for its high flow/fast cycling, excellent chemical resistance, and low moisture absorption/strong dimensional stability.

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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, [SOLVAY](#) 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 SA [SOLB.BE](#) is listed on [NYSE Euronext](#) in Brussels and Paris (Bloomberg: [SOLB.BB](#) - Reuters: [SOLBt.BR](#)).

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