

## Solvay Presents Extensive Line-up of Innovative Specialty Polymer Solutions at Wire China 2014

*Broad-based Portfolio Delivers Superior Performance and Safety for Advanced Wire and Cable Applications in Greater China and Beyond*

**SHANGHAI, PR China, September 24, 2014** – As a leading upstream supplier, Solvay Specialty Polymers provides a diversified portfolio of high-performance materials to the wire and cable industry, worldwide. Designed to meet the most challenging requirements of cable manufacturers, building owners, engineers and equipment designers, the company's broad-based offering in this wide market segment is targeted at innovative, profitable and sustainable applications in areas from telecommunications, oil and gas, automotive, aerospace and military to industrial engineering and consumer electronics.

“The wire and cable market in China and throughout Asia is characterized by dynamic growth and increasing demands for higher performance and safety solutions,” says Dr. Luke Du, General Manager of Greater China & Southeast Asia for Solvay Specialty Polymers. “Our extensive experience, global integration and local market presence helps processors and manufacturers to succeed in this market with leading-edge cable products that can bring about a step change in terms of personal security and equipment protection as well as ‘green’ design and sustainable material usage.”

Solvay's broad product portfolio for the wire and cable industry comprises above all fluoropolymers, ultra-high performance polymers, sulfone polymers and cross-linkable compounds. Each of these product families offers a unique combination of electrical, chemical, mechanical and thermal properties (see *Fig. 1*) for innovative power and signal, telecom, data, networking and various special applications in key industries such as building and construction, oil and gas, advanced transportation and automotive, and renewable energies. In addition, customers seeking to gain and maintain a competitive role in their specific market areas can also benefit from the company's full range of added-value technical services, including material selection, design optimization, performance trials and production scale-up.

Solvay Specialty Polymers' Halar<sup>®</sup>, Hyflon<sup>®</sup> and Solef<sup>®</sup> fluoropolymers feature unsurpassed dielectrical, thermal and fire resistance properties, making them a natural choice for advanced cable products. Halar<sup>®</sup>, a family of partially fluorinated ethylene chlorotrifluoroethylene (ECTFE) resins, combines high electrical properties and abrasion resistance over a wide range of temperatures with excellent weatherability and high chemical resistance to a wide range of acids, bases and organic solvents. Typical applications include jacketing and thin-wall designs manufactured at high line speeds for telecom, control, downhole and heating cables as well as appliance wires and cathodic protection. As a special extrusion grade providing improved stress-crack resistance, Halar<sup>®</sup> XPH has a class D rating according to the automotive industry's ISO 6722/LV112 cabling standard. Halar<sup>®</sup> 558 foamable ECTFE compound meets the fire resistance according to NFPA 262 for cross-webs and coaxial core insulation.

Hyflon<sup>®</sup> perfluoro alkoxy (PFA) resins are semi-crystalline melt-processable perfluoromers with a proven fit in high-temperature hook-up wires and heating cables. Hyflon<sup>®</sup> MFA grades, based on Solvay's proprietary perfluoro methyl alkoxy technology, exhibit exceptional thermo-mechanical properties (up to 225°C) and intrinsic thermal stress-crack resistance, ideal for highly demanding flexible wiring systems, such as in automotive, avionics and military applications. The family also includes a high melt flow rate material specifically designed for high-speed extrusion of primary insulations in plenum rated local area network and other thin-wall cables. Physically foamed Hyflon<sup>®</sup> compounds offer extremely low attenuation properties for high-performance coaxial cables, superior cross-webs and shielded twisted pairs.

Solef<sup>®</sup> polyvinylidene chloride (PVDF) resins are partially fluorinated melt-processable polymers offering outstanding chemical, weathering, thermal and fire resistance. This property profile makes them ideal for a wide range of wire and cable jacketing in raceway, fiber optical, telecom, industrial, oil and gas, and aerospace applications. Solef<sup>®</sup> PVDF can also be cross-linked by means of ionizing radiation to further improve its thermo-mechanical properties.

For security and fire alarm as well as railway, marine and off-shore power, instrumentation and data cables, Solvay offers a range of RoHS compliant Cogegum<sup>®</sup> cross-linkable HFFR compounds that provide halogen-free flame retardancy and low toxicity in combination with a short circuit temperature of 250°C and excellent resistance to mineral oil, fuels, alkaline and acid fluids, crude oil and drilling mud. Various different catalyst masterbatches are available for tailoring the final material performance to specific requirements of working temperature, long-term aging and/or UV resistance.

Solvay's Polidan<sup>®</sup> XLPE and Polidienne<sup>®</sup> XLPO silane grafted polyolefinic compounds include various RoHS compliant non-halogenated grades purpose-designed for high extrusion speeds, fast ambient curing and low water absorption. Available in low to medium density and standard to ultra-flexible formulations, these products are typically used for insulation and sheathing of signal and power as well as low-voltage aerial cables.

Ultra-high performance KetaSpire<sup>®</sup> PEEK and AvaSpire<sup>®</sup> PAEK materials offer the best combination of thermo-mechanical properties for advanced cables and wiring systems that must resist high end-use temperatures, harsh weathering, chemical permeation and flexural fatigue. Proven applications span from rail, marine and aerospace to military specification and nuclear power cables. KetaSpire<sup>®</sup> PEEK has a limiting oxygen index of 35%, extremely low flammability and very low smoke generation. AvaSpire<sup>®</sup> PAEK combines superior flexibility and ductility with high melt stability for ease of processing.

Among Solvay's amorphous polymers for the wire and cable industry, Radel<sup>®</sup> polyphenylsulfone (PPSU) provides exceptional hydrolytic stability and toughness as well as higher deflection temperatures and environmental stress crack resistance than other commercially available high-temperature engineering thermoplastics. The polymer is inherently flame retardant and extremely well suited for thin-wall cable designs. For automotive applications such as sheathed cables in engine compartments and gearbox control, automatic transmission and fuel injection sensor cables, Radel<sup>®</sup> R-5800 meets ISO 6722 Class E requirements (175°C).

The extensive portfolio is complemented by various specialties, including a Torlon<sup>®</sup> polyamide imide powder grade for magnet wire enamel and protective printed circuit board coating; Algorlon<sup>®</sup> polytetrafluoro ethylene (PTFE) for wire insulations and wrappings requiring best-in-class dielectric properties nearly irrespective of frequency and temperature; and Tecnoflon<sup>®</sup> FKM fluorinated elastomers for extremely demanding jacketing and insulation applications, with thermal performance up to 240°C, inherent flame retardancy, long-term aging and outstanding chemical resistance even to aggressive fuel mixtures. Recent additions to Solvay's wire and cable materials offering also include a Udel<sup>®</sup> polysulfone (PSU) foam grade that passes the stringent NFPA 262 smoke and flame test for plenum (CMP) applications. The material offers significant cost advantages over competing resins, such as fluorinated ethylene propylenes (FEP), and is already used for tapes and cross-webs in category 6 telecom cables.

Solvay Specialty Polymers' products meet the highest standards of quality and consistency. Available from 15 manufacturing sites around the globe, the offering is backed by over 2,900 patents, more than 40 proprietary technologies and a force of almost 500 research and innovation specialists across all regions.

During the 6th biannual All China International Wire & Cable Industry Trade Fair at the Shanghai New International Expo Center (SNIEC) from September 24 through 27, 2014, material and market specialists from Solvay will be available to discuss the advantages of these polymers for advanced design, profitable manufacture and sustainable end use of applications in this dynamic industry segment, at Booth C12 in Hall W1.

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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 & 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**.

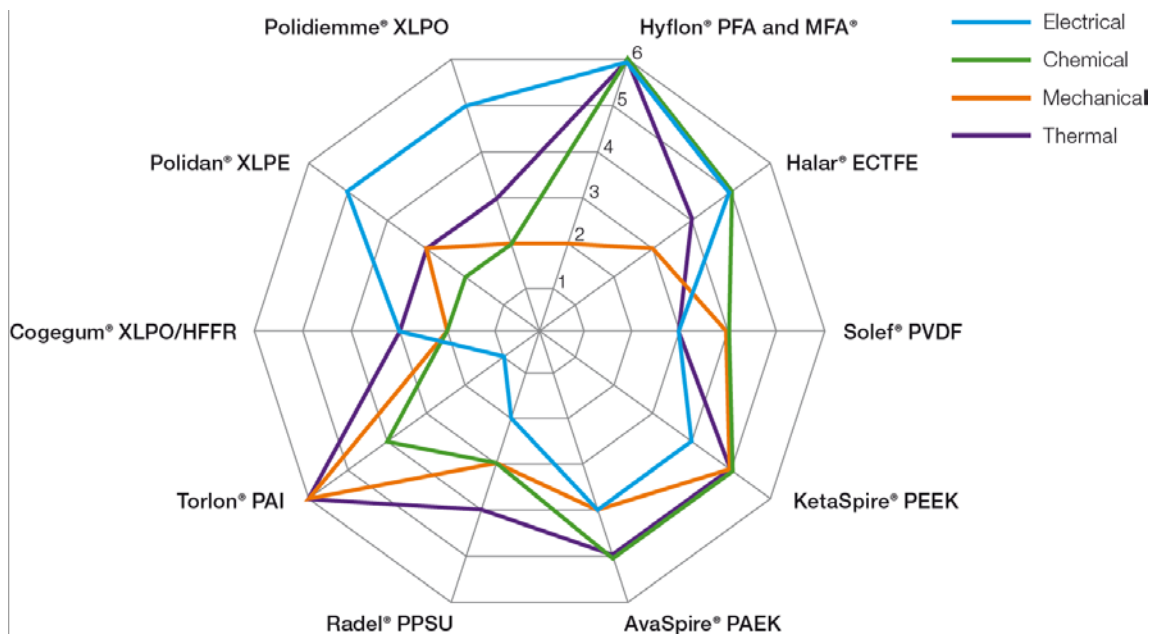
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**Fig. 1:** Solvay Specialty Polymers is a leader in the research, development and manufacturing of high-performance polymers which are designed to withstand the most challenging requirements of the Wire & Cable industry. (Diagram courtesy Solvay SA)