

## Solvay to Feature Extensive Portfolio of Innovative Specialty Polymers at Semicon Taiwan 2015 for Fab Processes

*Galden® High Boiler and Heat Transfer Fluids with Boiling Points up to 270°C*

*High-Purity Tecnoflon® FFKM for Critical Seals*

**TAIPEI, Taiwan, September 2, 2015** – Solvay Specialty Polymers, a world leader in the research, development and manufacturing of high-performance materials designed to master the most challenging requirements in the semiconductor industry, will showcase at Semicon Taiwan 2015 (Booth 1, 4th Floor Nangang Hall) its extensive portfolio of advanced solutions to meet the process and cost efficiency targets in this demanding market.

Semiconductors, nanoelectronics, micro-electro-mechanical systems (MEMS) and wafers, as well as photovoltaics and other related fields of advanced electronics, rely on extremely pure and high-technicity components, most of them manufactured in a cleanroom environment. A typical fab process can comprise more than twelve different steps from lithography, etching and vapor deposition to chemical-mechanical planarization, oxidation, ion implantation and diffusion, which are repeated many times over. New technologies give rise to ever more densely packed modules on minuscule surfaces. All this requires materials with outstanding durability, chemical and heat resistance in both fabrication and use.

“According to SEMI World Fab Forecast reports, semiconductor fab equipment spending on new, existing and front-end facilities will increase 11 percent in 2015 and another 5 percent in 2016, with over 20 percent of the worlds’ installed fab capacity located in Taiwan. A wafer fab can easily exceed capital expenditures of 10 billion dollars and must be operated to minimize total cost of ownership,” says Dr. Luke Du, managing director Asia and executive vice president, Solvay Specialty Polymers. “We are determined to support the ambitious investments, productivity and performance targets of our customers in this fast-moving industry with the most comprehensive offering of innovative materials for safe and efficient fabrication of state-of-the art and next generation products.”

Spearheading Solvay’s exhibit at Semicon Taiwan, Galden® perfluoropolyether (PFPE) fluids are among the most advanced semicon testing, soldering and heat transfer fluids available in the market. For flexible components such as critical seals, Solvay will also highlight its family of ultra-performance Tecnoflon® fluoro/perfluoroelastomers (FKM/FFKM).

Galden® Heat Transfer (HT) PFPE are a complete family of inert and dielectric heat transfer media covering the broadest range of boiling points among all fluorinated heat transfer fluids, from 55°C to 270°C, for applications requiring operating temperatures between -100°C and +290°C. Thanks to their excellent thermal stability and chemical compatibility with a wide range of metals, plastics, rubbers and silicone, they will not react with construction materials nor form any decomposition residues, thereby helping to prevent corrosion and pump seizure. Notably, these fluids contain zero hydrogen in their chemistry and consequently show no affinity to hydrocarbons in seal and gasket compounds.

In particular, Galden® HT High Boiling (HB) grades specifically engineered as boiler fluids with boiling points up to 270°C for high-temperature applications, show very low evaporation losses and can also enhance the efficiency of moderate-temperature processes by replacing fluids that are normally associated with higher evaporation rates.

Available in five low and four high boiling (LB/HB) grades, Galden® HT offers a perfect choice of heat transfer fluids wherever there is a need for strict temperature control in the fab process. Furthermore, the range is characterized by its non-toxicity, non-flammability and zero ozone depletion potential, outperforming the environmental sustainability and workplace safety of many competitive fluids.

Solvay's Tecnoflon® perfluoroelastomers (PFR) combine high purity and chemical resistance with superior mechanical and sealing properties for critical applications such as chamber, lid, window, gas inlet, fitting and lip seals as well as slit valve gates and various wafer handling parts. Two semiconductor specialty grades also exhibit very good oxygen and fluorine plasma resistance, very low particle generation and low outgassing along with excellent tribological performance (low friction, high abrasion resistance) at temperatures up to 300°C.

"Semicon Taiwan is one of Asia's premier events for microelectronics manufacturing, and we look forward to demonstrating the high performance and productivity of our semicon materials portfolio to designers, fabricators and OEMs who are seeking to gain and maintain a competitive lead in their particular market fields," says David Ho, Semiconductor global market director for Solvay Specialty Polymers.

Further materials with a proven fit in the semicon market include Fomblin® PFPE as well as Algorflon® polytetrafluoroethylene (PTFE), Halar® ethylene chlorotrifluoroethylene (ECTFE), Hyflon® (PFA/MFA) and Solef® polyvinylidene fluoride specialties for a host of applications from wafer processing, fluid handling and lubrication to pipe insulation, exhaust ducting and waste disposal. This is complemented by AvaSpire® polyarylether ketone (PAEK), KetaSpire® polyetherether ketone (PEEK) and Torlon® polyamide-imide (PAI) ultra-polymer resins with outstanding thermal, mechanical and chemical property profiles particularly for high-heat and wear resistant components. In addition, Solvay's recently formed Special Chem global business unit offers Zenus®, a high precision colloidal cerium oxide abrasive with consistent grain sizes from 10 to 60 nm for the demanding needs of scratch-free wafer surface polishing suspensions.

Solvay's material and market experts will be available at Semicon Taiwan at Taipei's Nangang Exhibition Center from September 2-4 in Hall 1, 4th Floor, Booth #1, to discuss the trends and challenges in the semiconductor industry and the company's extensive portfolio for cost-efficient and innovative solutions.

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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 and 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**) is listed on **EURONEXT** in Brussels and Paris (Bloomberg **SOLB:BB** – Reuters: **SOLB.BR**).

## Press Contacts

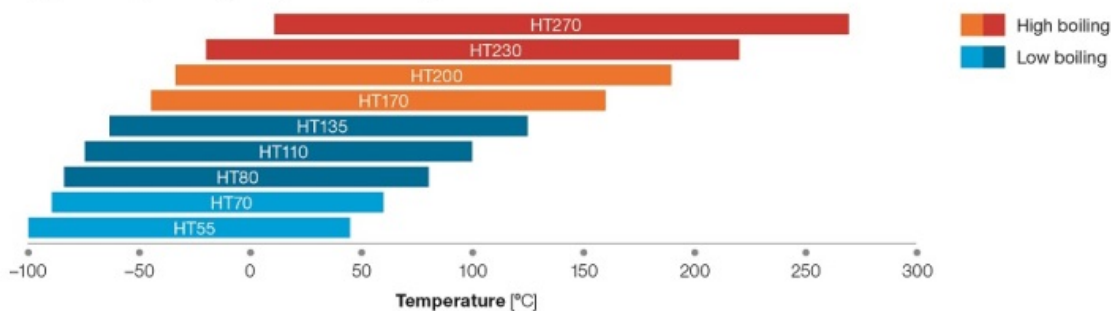
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### Suggested operating temperature range



### **Caption:**

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(Courtesy Solvay SA)