

Solvay's Ixef® PARA Receives Regulatory Approval for Drinking Water Use

*Revised Product Targets Household Appliances,
Building and Construction, and Water Processing*

Brussels, February 28, 2014 – A revised grade of Ixef® polyarylamide (PARA) from Solvay Specialty Polymers has received clearance by regulatory authorities in the U.S. and the European Union for use in drinking water applications. Ixef® DW-1022 compounds – available in natural and black – provide numerous benefits over metals and competitive semi-aromatic polyamides (PA) and expand Solvay's portfolio of high-performance polymers for use in household appliances, building and construction, and the potable water processing industry.

The material was developed by Solvay in anticipation of new regulations to be implemented by the European Union in 2015. The new EU standards place specific requirements on the type of glass fiber and other additives used in compounded materials. Ixef® DW-1022 (50% glass filled) meets EU Commission Regulation EU N°10/2011 along with Food & Drug Administration (FDA) regulations (FDA Food Contact Notification 1242). The material also meets NSF/ANSI 61 at 23°C (73°F), 60°C (140°F), and domestic hot water at 82°C (180°F) and offers a significant improvement over directly competitive materials, as the accepted exposed surface per volume ratio reaches 275 sq. in./liter for both 60°C and 82°C. Other key regulatory clearances have come from W270 (Germany), ACS (France) at 23°C and 60°C, WRAS (U.K.) at up to 85°C (185°F), and KTW (Germany) at 60°C with some restrictions. The material's compliance with certain drinking water requirements like NSF 61 distinguishes it from competitive semi-aromatic PAs which lack such breadth of conditions of approval.

“Our newest offering for drinking water applications positions us for future growth in consumer and appliance markets,” said Vincent Meunier, product and business development manager for Ixef® PARA and Kalix® high-performance polyamide (HPPA) products. “This is an important expansion of Solvay's product range and will help meet the growing demand for drinking water applications.”

A key feature of Ixef® DW-1022 is its chemical inertness. The material maintains its high strength, rigidity, and excellent creep resistance despite exposure to humid/wet environments. In comparison, competitive semi-aromatic PAs have higher moisture pick-up, resulting in a significant loss of mechanical properties (up to 23%). The tensile modulus of Ixef® DW-1022 is over 40% higher than competitive semi-aromatic PAs after being conditioned in water.

Ixef® DW-1022 also provides higher gloss parts for cosmetic applications compared to competing semi-aromatic PAs and has better flow characteristics. Its spiral flow test (2 mm, 750 bar) yields a flow length of 166 versus 90 for competitive semi-aromatic PAs. In comparison to metal, the new Ixef® PARA grade is lighter and offers part integration, design flexibility, and reduced production costs. The tensile strength of Ixef® PARA compounds is similar to many cast metals and alloys at ambient temperature. Even with high glass loadings, the surface is exceptionally smooth, defect-free, and suitable for metallization. Typical injection molding applications include housings, covers, and functional parts for consumer goods and water treatment applications such as filters, manifolds, and levers that require both aesthetics and high mechanical properties. The material is also suitable for pipes, fittings, flow meters, and sensors used in those appliances and in the water processing industry.

Ixef® DW-1022 is manufactured at Solvay's Oudenaarde, Belgium facility. The company said it plans to qualify other production facilities in order to meet increasing regional demand.

Ixef® DW-1022 is being evaluated by leading manufacturers in the consumer goods and water processing industries. In addition to Ixef® DW-1022, Solvay's drinking water portfolio includes Amodel® DW polyphthalamide (PPA) and various sulfone-based polymers that are suitable for hot water plumbing applications including Udel® polysulfone (PSU), Veradel® polyethersulfone (PESU), Radel® polyphenylsulfone (PPSU), and Acudel® modified PPSU. The offering also includes Solef® polyvinylidene fluoride (PVDF), a high-performance fluoropolymer used for piping systems for ultrapure water, hot water, and concentrated acids, and Halar® ECTFE, a copolymer of ethylene and chlorotrifluoroethylene used for protective linings in piping, tanks, and other vessels.

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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 (www.solvay.com) 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 aerospace 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 29,400 people in 55 countries and generated 9.9 billion euros in net sales in 2013. Solvay SA (SOLB.BE) is listed on NyseEuronext (www.euronext.com) in Brussels and Paris (Bloomberg (www.bloomberg.com) : SOLB:BB- Reuters (www.reuters.com): SOLB.BR).

Press Contacts

Alan Flower

Industrial Media Relations
+32 474 117091
alan.flower@indmr.com

Joe Grande

Media Relations
+1 413 684 2463
joe.grande@verizon.net

Alberta Stella

Solvay Specialty Polymers
+39 02 2909 2865
alberta.stella@solvay.com

Marla Witbrod

Solvay Specialty Polymers
+1 770 772 8451
marla.witbrod@solvay.com