

Solvay's Medical-Grade KetaSpire® PEEK and AvaSpire® PAEK Enable Shanghai Reach to Innovate Lighter, More Ergonomic Spinal Surgery Instrument Kit

Alpharetta, Ga., Oct. 5, 2016 --- Solvay, a leading global supplier of specialty polymers, announced today at EUROSPINE 2016 (Hall B, Booth N96) that its medical grade KetaSpire® polyetheretherketone (PEEK) and AvaSpire® polyaryletherketone (PAEK) polymers enabled medical device pioneer, Shanghai Reach Medical Instrument Company, to develop a lighter, more ergonomic and highly cost-effective kit of reusable instruments for spinal surgeries.

"For decades, metal was the material of choice for medical instruments because conventional plastics could not deliver metal's combination of high modulus, strong chemical resistance and compatibility with stringent sterilization methods," said Xiaomin Huang, General Manager of Shanghai Reach. *"Today, Solvay's broad range of specialty polymers is changing that reality – not only by offering metal-like performance, but by also enabling the fabrication of more complex and integrated parts through cost-effective injection molding."*

Shanghai Reach's innovative kit includes six reusable instruments: one rod bender, two pairs of distraction and compression pliers, and three awls. For the rod bender, the medical device-maker specified KetaSpire® KT-880 CF 30 PEEK, a 30 percent carbon fiber-reinforced resin that delivers the high strength and stiffness necessary to bend implantable 5.5-6.0 mm titanium rods. For the pliers and awls, Shanghai Reach chose AvaSpire® AV 651 GF 50 PAEK, a 50 percent glass fiber-reinforced resin offering a cost-effective balance of strength, stiffness and dimensional stability.

Typically, these parts would be made from stainless steel. But Shanghai Reach's goal was to reduce instrument weight by up to 70 percent for improved ergonomics, yet not compromise on mechanical properties or sterilizability. In addition to lightweight strength and stiffness, Solvay's two biocompatible polymers offer strong resistance to fatigue and are compatible with sterilization methods based on stringent chemicals, steam and even gamma radiation.

"Shanghai Reach's innovative new kit highlights the ground-breaking value that Solvay's advanced polymers are injecting into a healthcare market once dominated by metal," said Jeff Hrivnak, Global Business Development Manager for Healthcare at Solvay's Specialty Polymers Business Unit. *"We expect this trend to continue as we team with industry pioneers like Shanghai Reach to explore new possibilities for replacing metal medical instruments with more cost-effective, ergonomic instruments made from high-performance polymers."*

Solvay Specialty Polymers' experience as a reliable materials supplier in the healthcare field spans more than 25 years. The company is a leading manufacturer of healthcare plastics, offering a broad range of high-performance, medical-grade plastics for orthopedics, sterilization cases and trays, medical and dental devices, as well as filtration media and housings for hemodialysis and water purification membranes. Solvay also offers a family of Solviva® Biomaterials for use in a range of implantable devices

Shanghai Reach's new all-polymer surgical kit will be on display during EUROSPINE 2016 in Berlin, Germany at its exhibit (Hall B, Booth N147), as well as Solvay's booth (Hall B, Booth N96). The surgical kit is available globally.

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About Shanghai Reach

Founded in 2005, Shanghai Reach Medical Instrument Company, Ltd., is a professional medical device manufacturer mainly focused on surgical instruments. Encompassing product research and development, manufacturing and sales and service, the company provides custom-made service solution packages to meet its customers' special requirements.

Shanghai Reach is an expert in the manufacture of surgical instruments with an emphasis on ergonomics and efficiency. Our research and development team includes experts in mechanical engineering and polymer science, and is dedicated to innovating medical instruments of the highest level of quality.

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 & Cable, and other industries. Learn more at www.solvayspecialtypolymers.com.

About Solvay

An international chemical and advanced materials company, Solvay assists its customers in innovating, developing and delivering high-value, sustainable products and solutions which consume less energy and reduce CO2 emissions, optimize the use of resources and improve the quality of life. Solvay serves diversified global end markets, including automotive and aerospace, consumer goods and healthcare, energy and environment, electricity and electronics, building and construction as well as industrial applications. Solvay is headquartered in Brussels with about 30,000 employees spread across 53 countries. It generated pro forma net sales of € 12.4 billion in 2015, with 90 percent made from activities where it ranks among the world's top 3 players. Solvay SA (**SOLB.BE**) is listed on Euronext in Brussels and Paris (Bloomberg: **SOLB.BB** - Reuters: **SOLB.BR**).

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See images next page



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