

Instratek Chooses Medical-Grade Ixef® PARA for Innovative

Date:

Solvay's Ixef® 1022 PARA resin outperforms competitive polymers to meet

the high flexural strength and good moldability Instratek needed for its innovative new device. Solvay Specialty Polymers, a leading global supplier of high-performance thermoplastics, announced today that Instratek, a Houston-based developer of medical devices for extremity surgery, selected Solvay's Ixef® 1022 polyarylamide (PARA) resin to mold several components of its STAPiX™ staple fixation system used for surgical procedures on the forefoot, mid-foot, hind-foot and hand. Instratek, which just launched the STAPiX™ system in the United States, chose Ixef® PARA resin for its high strength and stiffness, excellent moldability and attractive price point for single-use medical devices.

“Our engineers initially explored several materials for this application, including ABS and PEI, but none could match Ixef PARA's unique combination of mechanical properties, aesthetics and manufacturability,” said Lance Terrill, director of engineering at Instratek. “Solvay's hands-on technical support and expertise in medical-grade polymers were other factors that influenced our decision. The initial success of our advanced STAPiX® system makes it quite clear that we made the right choice.”

Ixef® 1022 PARA, a 50 percent glass-filled compounded resin, is used for the staple inserter handles, which are subject to high bending stress when the device opens a superelastic nitinol staple prior to its insertion into the bone. Of the polymers tested, only Ixef® 1022 PARA allowed bending of the nitinol staple while minimizing flexing in the tool's handles. In fact, the flexural strength of Solvay's material helped to reduce the size of the STAPiX™ spreader handles, thereby improving the experience of the surgeon and support staff in the operating room.