Foster Corporation, a leader in custom polymers for medical devices, offers LoPro Clear®, a radiopaque polyurethane that is both x-ray visible and optically transparent. Catheters extruded from LoPro Clear® can be located inside the body using fluoroscopy while fluid flow is visually monitored in the portion outside of the body.

Polymers are inherently transparent to x-ray. Sub-micron size particles of bismuth or barium are commonly added to polymers to provide x-ray or fluoroscopic visibility, known as radiopacity, for medical devices that must be detected inside the body. The resulting polymer compounds are optically opaque due to particle size of these traditional fillers.

Today, catheters are increasingly being used for localized drug delivery. These newer catheters can require radiopacity for fluoroscopic monitoring of device location inside the body, as well as optical clarity to ensure flow of the drug into the body. To date, polymer transparency and radiopacity have been mutually exclusive. Foster has solved this problem by using a proprietary rare earth metallic additive that is less than a nano-meter in size. Due to the size and dispersion of these radiopaque particles in the polymer, polyurethane compound retain inherent transparency of the base polymer.

Material and processing costs for LoPro Clear® can be twice that of traditional radiopaque compounds. As such, these materials are intended for precision drug delivery catheters in which both radiopacity and transparency is critical.

“Today’s medical devices are pushing new frontiers and demanding innovations in materials. Design engineers are asking us to selectively enhance properties without compromising others,” said Larry Acquarulo, CEO of Foster Corporation. “Until now, transparency was sacrificed for radiopacity. Our new LoPro Clear® offers both.”

For more information on transparent radiopaque compounds for medical applications, please visit www.fostercomp.com.

About Foster Corporation
For nearly 20 years, Foster Corporation has been at the forefront of medical and materials solutions based on extremely precise polymer technology. Foster Corporation is a leading supplier of custom biomedical polymers for the medical device industry, including custom compounds for minimally invasive devices, polymers blends for implants, and drug/polymer blends for combination products. For more information visit www.fostercomp.com.