# FOSTER EXPANDS NANO-REINFORCED POLYMER PRODUCT RANGE FOR MEDICAL DEVICES

PUTNAM, CT, USA - (**April 2, 2013) -** Foster Corporation, a leader in custom polymer compounds for medical devices, now offers nano-reinforced composites for minimally invasive devices, such as catheters, with reinforcement loadings up to 30% by weight. Nano-reinforced compounds with high filler loadings provide substantial increase in physical properties of the base resin while maintaining processibility in thin wall components.

Nano-reinforced compounds incorporate ultra-fine nano platelets that interact directly with the polymer structure to increase flexural properties and improve rigidity of components. Previously polymers such as polyamides (nylons) and thermoplastic elastomers (TPEs) were often limited to 15% nano-reinforcement filler loading by weight to ensure dispersion of the ultra-fine platelets in the polymer matrix. Foster has developed proprietary compounding screw designs and processing methods that are now capable of achieving loadings up to 30% by weight resulting in flexural modulus increases up to 300% in common medical catheter materials such as TPEs.

Foster's range of nano-reinforced compounds for thin-wall medical device applications include nylons, TPEs and thermoplastic polyurethanes (TPUs) with nano-platelet reinforcement loadings from 1% to as high as 30%.

Nano-reinforcement technology allows engineers to tailor the properties of a medical device without changing the base polymer, which may be necessary to for coextrusion or bonding applications. For example, the flexural modulus of a 72 durometer of a TPE polymer can be adjusted from 100,000 to 400,000 psi (690 to 2758 MPa) using nano-reinforcements up to 30% by weight.

For more information on nano-reinforced compounds for medical applications, please visit www.fostercomp.com.

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**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.