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POLYMEDEX DEVELOPS MULTI-LAYER POLYIMIDE AND TPE TUBING THAT COMBINES THE BEST OF BOTH WORLDS

PUTNAM, CT, USA – **(November 9, 2010)** – PolyMedex Discovery Group announces the availability of custom multi-layer tubing composed of thermoset polyimide and thermoplastic elastomer (TPE) laminate. Through a manufacturing process developed by PolyMedex, the high strength and tight tolerances of thermoset polyimide are combined with the wide variety of material options and configurations available in thermoplastic elastomers. Polyimide and TPE composite multi-layer tubing is ideal for demanding medical device applications that require a combination of high performance and manufacturability.

The primary value of the polyimide and TPE multi-layer tubing is the ability to utilize the benefits of thermoset polyimide, while mitigating its limitations. Thermoset polyimide has a minimum tensile strength of 20,000 psi (138 MPa) which is 30% greater than high performance thermoplastics such as polyetheretherketone (PEEK). Due to its hard and glossy surface, polyimide is ideal for device working channels, improving passability of metallic devices such as implants. Polyimide is also resistant to the harshest chemicals and features a dielectric strength of 10,200 volts. Thermoset polyimide tubing can be produced with ID tolerances in the range of +/- 0.0002 in to +/- 0.0005 in (0.0051 mm - 0.013 mm) depending on diameter. This makes the material ideal for small diameter vascular device assemblies where high strength and tolerance stackup are a critical concern.

The greatest limitation of thermoset polyimide tubing is that it is available in only in a round single lumen configuration and is difficult to bond, color or thermal form. In contrast TPEs can be extruded in virtually unlimited configurations, including profiles and and multilumen. A wide variety of durometers and stiffnesses allow TPE polymers to solve a broad range of medical

device challenges. TPE tubing can also be thermally-formed after extrusion to create critical catheter components such as traumatic tips and flares for connector fittings.

By integrating the two resins, the PolyMedex composite multi-layer tubing features the best benefits of thermoset polyimide and TPE tubing. For more information, please visit www.polymedexgroup.com.

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About PolyMedex Discovery Group

PolyMedex Discovery Group serves medical device manufacturers with comprehensive development and manufacturing services for intravascular, minimally invasive, and implantable applications. Their capabilities include polymer distribution, custom compounds, bioresorbable and drug delivery formulations, thermoplastic and thermoset tubing, and custom components.