

POLYMER SOLUTION Casting

Nordson MEDICAL offers polymer science, unique engineering technology, and innovation to provide new and distinctive custom catheter solutions for medical device companies. Nordson MEDICAL's polymer solution casting is an additive manufacturing process that results in unique and specialized designs unobtainable by extrusion technology. Polymer solution casting can achieve both flexibility and pushability along a catheter shaft by utilizing liquid polymer layers to encapsulate multiple components and reinforcements such as braids, coils, and hypotubes. This technology lends itself to varying wall thicknesses and diameters along the length of a device in a single piece construction while maintaining tight tolerances and without compromising product quality, features, and functionality.

MULTITUDE OF PRODUCT OPTIONS AND CAPABILITIES

- **Shapes:**

- Single- and multi-lumen
- Complex geometric designs

- **Embedded Reinforcement/Features:**

- Coiling and braiding (flat, round wire)
- Hypotubes
- Malleable and laser-cut wires
- Radiopaque/imaging targets (marker bands, tantalum dots)
- Medical-grade stainless steel or nitinol

- **Tubing/Shaft Features:**

- Kink resistant
- Column strength
- Varying durometer or wall thickness along the length
- Lubricious inner and/or outer surface compatible with PTFE liners

- **Single-Piece Construction:**

- Varying wall or diameter
- Tapered tubing
- Material variety and combinations for localized requirements

- **Hubs, Luers, Caps, and Connectors:**

- Custom or standard colors
- Hub bonding

- **Materials:**

- Polyurethane
- Polyvinyl chloride
- Silicone urethane copolymers
- Custom formulations, compounds, and blends

- **Secondary Operations:**

- Pad printing
- Tipping
- Skiving
- Hold punching
- Bending
- Forming
- Bonding
- Custom branding
- Packaging
- Labeling

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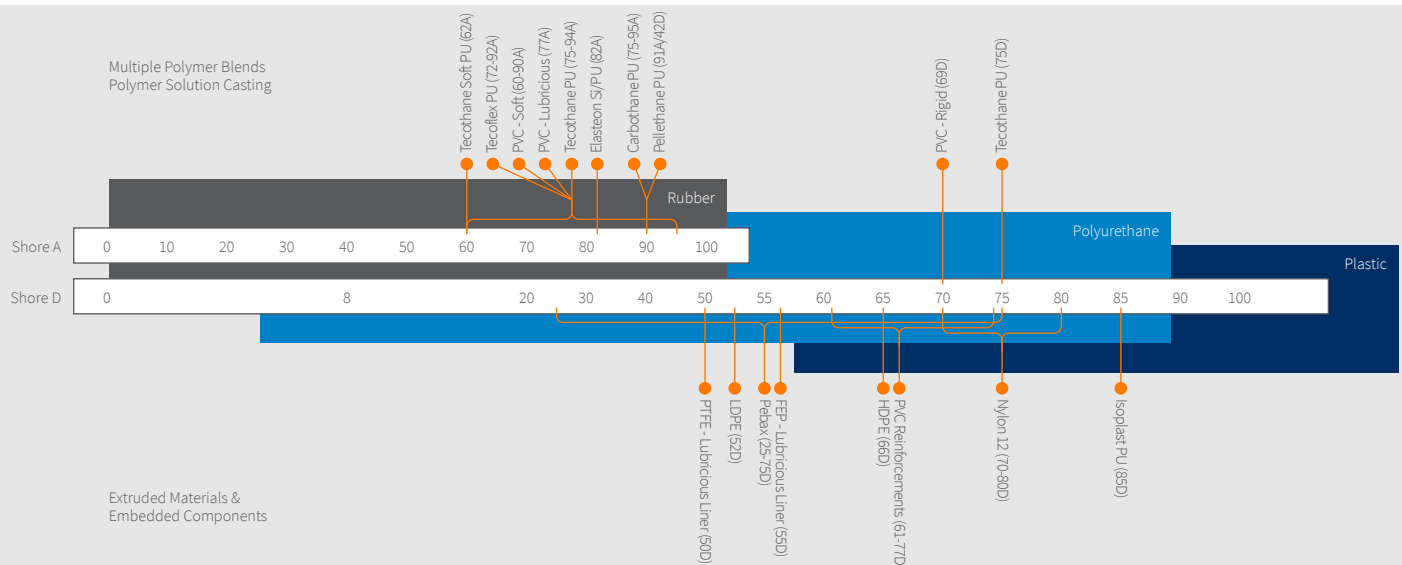
MANUFACTURING EXCELLENCE

Nordson MEDICAL offers manufacturing and assembly options for medical device manufacturers to assist with production resource management such as cost reductions, line extensions, and large-scale commercial production releases.

Sophisticated Engineering

We'll assist in identifying critical specifications, selecting appropriate materials for your application, reviewing your specifications to take advantage of our polymer solution casting capabilities, and implementing any test methods to support your medical device needs.

- Testing services include: mechanical properties, chemistry, bench testing, and material properties
- Rapid prototyping with on-site production capabilities
- On-site tooling and fixturing capabilities



MARKETS SERVED

- Bariatrics/Obesity
- Cardiology/Vascular
- Cardiovascular
- Endoscopy
- Extracorporeal Life Support
- Neurovascular
- Oncology
- Peripheral Vascular
- Pulmonary/Respiratory
- Structural Heart & Valve Therapy
- Vascular
- And more