

DuPont™ Spectrum™ Injection Molding Capabilities



Your Single Source for Go-to-Market Success

DuPont™ Spectrum™, part of the DuPont Healthcare Solutions portfolio, delivers vertically integrated, engineering-led injection molding and contract manufacturing that supports new product introduction (NPI) and sustained, validated production for Class I, II, and III medical devices.



With deep experience in complex molding and highly engineered medical-grade plastics, we produce premium components and fully assembled devices—reliably and at scale.

Injection Molding Manufacturing Footprint

DuPont operates thermoplastic injection molding facilities in Minneapolis, MN, and New Brighton, MN, along with silicone injection molding facilities in New Brighton, MN, Tucson, AZ, and Hemlock, MI. Together, these sites provide complementary capabilities that support early-stage development, design transfer, scale-up, and long-term lifecycle management.

Product and Process Development

- Specialized engineers dedicated to product design, process development, and program management
- Part design optimization and component consolidation
- Design for Manufacturability (DFM), Design for Assembly (DFA), and Design for Six Sigma
- CAD/CAM/CAE, FMEA, and Moldflow® analysis (Fill, Cool, Warp)

Prototyping and Design Iteration

- Near-net-shape prototypes via machining, molding, or additive manufacturing
- Near-production tolerances to support functional and verification testing
- Common medical-grade materials stocked to accelerate development timelines

In-house Toolmaking

- In-house toolmakers designing and building production tooling
- Robotic machining and automated tool-build cells
- Full lifecycle tooling maintenance to support validated, long-term production

Injection Molding and Micromolding

- Presses ranging from 5 to 300 tons
- Implantable and non-implantable components
- High-temperature injection molding
- Micromolding for parts <1 mg to 2 g, with integrated vision inspection

Silicone Molding

- Conventional and micro liquid silicone rubber (LSR) injection molding
- Over-molding onto PEEK, engineered plastics, and metals, including micropart production
- Post-molding annealing, cleaning, and insert molding performed in-house
- End-to-end, single-source silicone molding capabilities that improve reliability, accuracy, and cost efficiency

Metrology and Process Control

- Vision and touch-probe CMMs
- Tensile and compression testing
- GD&T verification using 3D CAD model comparison
- Integrated SPC and real-time quality data capture

Assembly, Secondary Operations, and Packaging

- Automated, semi-automated, and manual assembly
- Sonic, laser, and resistance welding
- Adhesive bonding, heat staking, and pad printing
- Laser marking, serialization, labeling, and barcoding
- Packaging and package validation testing

Quality and Regulatory Confidence

- ISO 13485-certified quality management systems
- FDA-registered manufacturing facilities
- Cleanroom manufacturing (ISO Class 7 and 8)
- Documented IQ / OQ / PQ and process validation
- ITAR registered with the U.S. Department of State, Directorate of Defense Trade Controls (DDTC)

Medical Markets Served

- Bariatric
- Cardiovascular
- Diagnostics
- Drug Delivery
- Enteral Feeding
- Neuromodulation
- Ophthalmic
- Orthopedics
- Surgical Technologies
- Urology
- Vascular
- Women's Health
- And more



Why DuPont?

- Vertically integrated global capabilities with local execution
- Extensive in-house expertise—from materials science and design support through scale-up and manufacturing
- DuPont Innovation Centers enable close customer collaboration and co-development
- A legacy of materials and manufacturing expertise advancing the next generation of healthcare innovations
- Quality-driven manufacturing with proven performance in highly regulated environments

Advancing Healthcare Innovations

As part of DuPont Healthcare Solutions, DuPont™ Spectrum™ injection molding capabilities support R&D and sourcing teams to bring complex medical devices to market efficiently, reliably, and with confidence, to improve lives.



**Learn More
About Our Injection
Molding Capabilities**





For questions or more information, visit spectrum.dupont.com

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