



**Accumold** was founded in 1985. Our focus was to mold very small parts other companies could not produce. The same mission continues to drive us today. Our expertise in micro-molding and our commitment to innovation is centered on producing your critical components. This kind of work often requires micron tolerances, intricate geometries and extremely small features. Our experience and capabilities in these areas are what make us the **World Leaders in Micro-Mold® Manufacturing Solutions.**



### micro-mold parts & features

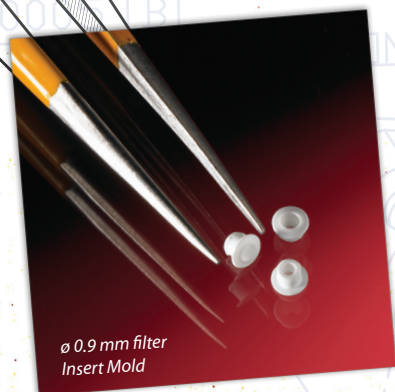
**Micro-Mold®** parts from about 13mm (0.5") and smaller.

**Small Mold** parts up to about 90mm (3.5") in diameter.

Lead Frame	2-Shot Micro-Molding
Insert / Over-Molded	Micro Optics
Micro-fluidics	Engineering Grade Resins

### Other Services Include:

Custom Automation & Packaging  
Clean Room Molding  
High-Volume Manufacturing  
Secondary Operations (i.e. Sonic Welding & light sub-assembly)



ø 0.9 mm filter  
Insert Mold



Custom Automation  
Lead Frame



### market segments

Medical	Automotive Electronics
Micro-Electronics	Military / Aerospace
Micro-Optics	Emerging Technologies

### Technical Highlights

- ➔ Accumold processes highly engineered resins including PEEK, Ultem® (PEI) and LCP.
- ➔ Accumold can measure surface finish and surface profiles with our in-house white-light interferometer.
- ➔ Our state-of-the-art Quality Department uses laser and optical metrology with sub-micro accuracy.



### services offered

**Design For Manufacturability:** Our engineering team works closely with your design engineers to improve and determine manufacturability. Detailed design reviews with your team ensures expectations are met for the final piece part.

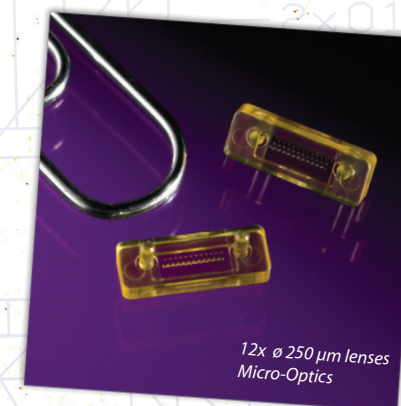
**In House Tooling & Mold Building:** Great tools make great parts. Being vertically integrated with tool design and build is a must in order to control this delicate process from start to finish. Cross-functional teams work to build tools that are capable of molding production ready parts. Our dedicated in-house maintenance team is also crucial to keep our production running like clockwork.

**Automation & Packaging:** Molding micron sized parts is impressive, but conveying and packaging them is no small feat. Understanding fit, form and function, our team develops entire systems to protect and deliver quality parts to your specifications. Our automation team is devoted to designing and developing solutions just for you.

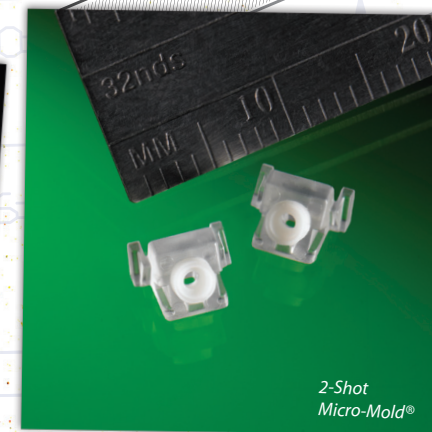
**24/7 Production, Tooling and Quality Inspection:** Our teams of experts meet around the clock to keep up with the demand in production and tooling. Our global customers require high-quality parts, quick turn-around and constant communication no matter where they may be. At Accumold this demand has become a way of life.

**Contact us** today or visit our web site to learn more about how Accumold can help you on your next project.

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12x ø 250 µm lenses  
Micro-Optics



2-Shot  
Micro-Mold®



## General Design Guidelines

### Micro-Mold® Platform

- Parts up to 13mm (.5") in the largest dimension
- Our smallest part to date is roughly  
800µm (.031") x 300µm (.012") x 380µm (.015")
- Thin wall section near .1mm (.004")
- Feature aspect ratios average 6:1 (very material dependent)
- Part volume .08 cm<sup>3</sup> (.005 in<sup>3</sup>) or less
- Gate size as small as Ø.1mm (Ø .004")
- Ejector pins as small as Ø .254mm (Ø .010")

#### Note:

- Parts must have a gate and ejection location consideration.
- Material selection can greatly affect the fill and definition of features.

### Small Mold Platform

- Parts up to 58cm<sup>2</sup> (9 in<sup>2</sup>)
- Our largest part to date is roughly 9cm (3.5") in diameter or approximately 1oz in shot weight.

#### Note:

- Many of the same Micro-Mold® type features can be achieved
- Material selection on larger parts with finer details is more critical

### Insert / Lead Frame Platform

- Parts up to 58cm<sup>3</sup> (9 in<sup>3</sup>)
- Overmold metals, glass, foil, fabric, ceramic flex-circuits, film, other plastics
- Insert material can be as thin as .1mm (.004")

#### Note:

- Must consider how insert will be held in mold during the process.
- Insert material must be able to withstand the pressures and temperatures of molding.

### Thermoplastic Resin Expertise

- PEEK, Ultem®, LCP, Nylon
- TPE / TPU
- Filled materials: glass, carbon, etc.
- Optical Grade
- Medical / Implantable Grades
- Attenuated Material

These guidelines reflect some of the capabilities we have developed and represent what can be accomplished. Each project is unique in size, shape and material and any one of those can greatly affect the molding capabilities. In some cases it can even exceed the general guide. See how you can challenge us!



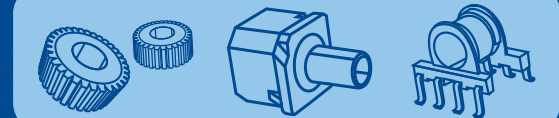
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ISO 9001:2008  
ISO 14001:2004



# MANUFACTURING SOLUTIONS