



Polymics, Ltd.

Concept to Solution®

Polymics, Ltd. is the world's premier developer and manufacturer of ultra-high performance engineering polymers, including Polymics' proprietary Arylmax base resins designed to out-perform PEEK at high temperatures. Utilizing ISO certified production facilities, our core competency is the custom formulation of compounds uniquely designed to match the needs of our customers' specific applications.



Polymics is Up to the Challenge!

No matter what your application requires: wear resistance, chemical resistance, lubricity, conductivity, or all of these and more, we have the expertise to quickly and economically create the ideal polymer for the job.

Polymics' Standard Ultra-High Performance Polymers

Polyketones (PEEK, PEKK, PAEK)

PEEK	Unfilled, Reinforced, and Lubricated Polyetheretherketone
Pyramid® CC PEEK	Woven Carbon Fiber Cloth Reinforced Polyetheretherketone
Arylmax® K PEKK	Unfilled, Reinforced, and Lubricated Polyetherketoneketone
Arylmax® P PAEK	Unfilled Polyaryletherketone






Polyimides (PBI, PI, PEI)

Celazole® PBI	Unfilled, Carbon Fiber, and Static Dissipative Polybenzimidazole
Pyramid® PI	Unfilled and 15% Graphite-Lubricated Polyimide
Ultem® PEI	Unfilled, Reinforced, and Static Dissipative Polyether Imide

Other Standard Polymers (PPS, PPSU, PBT)

PPS	Reinforced and Lubricated Polyphenylene Sulfide
PPSU	Reinforced Polyphenylsulfone
Valox® 420 PBT	Glass Fiber Reinforced Polybutylene Terephthalate

Fillers and Reinforcements Utilized By Polymics

-  Glass Powders, Fibers, Spheres, and Beads
-  Carbon Powders, Fibers, and Nanofibers
-  Lubricants including PTFE, Silicones, MoS₂, TiO₂, and Graphite
-  Conductive Fillers including Carbon, Stainless Steel, and Inherently Dissipative Polymers (IDPs)
-  Custom Colors








Centrifugally Assisted Molding (CAM™) – Polymics, Ltd. has developed proprietary CAM™ technology that allows us to economically manufacture unfilled PEEK tubes to longer lengths - up to 18" - and thinner wall thicknesses - as small as 0.100" - than formerly possible by standard molding or extrusion processes. CAM™ processes result in minimal scrap material and shorter run times. Despite this, the mechanical properties of the PEEK tubes are better than their compression molded and extruded alternatives, while offering lower residual stress than injection molded parts.

Compression Molding of Plates, Rods, Tubes, and Discs – This process is often the most economical option for high-performance polymers because it offers the widest range of near-net sizes and materials with the lowest minimum order quantities, reducing additional charges for tooling and/or small-run set-ups. Our attention to cleanliness and our proprietary low-stress processing methods assure our customers the defect-free and dimensionally stable products that they require.

Injection Molding of Tubes and Parts – In addition to injection molding tubes, Polymics is able to combine machining processes to give you a complete solution that has been tailored to your application. All of our finished parts are completed to customer requirements and can be made from customer-provided drawings. If your existing parts are not working, Polymics is ready to help you upgrade to a better solution by replacing the material or providing you with a better-fitting component.

Other Capabilities

-  Resin Melt Filtration and Certified Reclaim Processes
-  Powder Grinding to 150 Mesh
-  Finishing Operations including Inserts, Bonding, and Assembly
-  Plastic Coating of Metal Components
-  In-house ISO/ASTM Physical Property Testing with Material Analysis including DSC/TGA/DMA



Custom Material Development Capabilities

Polymics, Ltd. is the only company in the world that has the expertise and manufacturing capabilities to take customers from high performance thermoplastic material development to final part molding and assembly. Our in-house engineering staff provides our customers with true one-stop “**Problem to Finished Part Solutions**” by working on their individual problem from start to finish. Because of our vertically integrated supply chain, we have a full range of capabilities, including material development, resin compounding, polymer conversion, component finishing and fabrication, and even physical property testing.

Let us take you from concept to solution.

Contact Us to Generate Your Own Custom Compounding Solution!

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