Minnesota Rubber & Plastics
Quadion LLC

Micro-Molding

MINNESOTA RUBBER AND PLASTICS is a global solutions provider of elastomer and thermoplastic components and assemblies to the medical and pharmaceutical, transportation, water and power industries. With over 70 years of experience in engineering design and advanced materials development, we are a technology leader in the miniaturization of parts for demanding applications.

Features & Benefits

- Full selection of process solutions (overmolding, 2-shot, etc.)
- Optimize complex geometries
- Meet tight tolerance targets
- High precision shot control
- Final inspection in 10,000 & 100,000 clean room environment — ISO Class 8
- Press capacity down to 5 ton
- Accurately produce parts weighing less than 0.1g

Why partner with Minnesota Rubber and Plastics?

- Full range of manufacturing processes
- Integrated components
- Proprietary compounds that meet regulatory requirements
- Design development expertise
- Global manufacturing footprint

Let us solve your MICRO application needs!

For simple geometry using our standard APEX material portfolio lead time is 1-5 weeks after receipt of order; quantities up to 100 pieces per tool cavity. [Note: This is dependent on the complexity of the geometry and part size.] For other customized design and material(s) please contact one of our Customer Service Representatives at 1-800-927-1422 for a quotation.

Minnesota Rubber & Plastics
Quadion LLC
Leader in Advanced Technologies

Advanced Materials

Minnesota Rubber and Plastic's standard APEX material portfolio is widely used in commercial applications for the medical and pharmaceutical, transportation, water and power industries.

For more information on our standard APEX material portfolio please contact our Regional Sales Manager in your area or one of our Customer Service Representatives at 1(800)927-1422. Utilizing high performance elastomers and thermoplastics our team of experts will identify the right material for your application.

Elastomers

Duckbill Valve
Material: Silicone
Weight: 0.044g

Bead Seal
Material: Silicone
Weight: 0.009g

Elastomer	Qmonix™ EPDM	Quniton™ FKM	Silicone VMQ
Hardness, Shore A	73	73	51
Tensile Strength, psi	1472	1520	1598
Elongation, %	134	193	485
Modulus @ 100% Elong	975	644	274
Tear Die Cut, ppi	69	—	—
Specific Gravity	1.12	1.85	1.14

Thermoplastics

Pinon Gear
Material: PEEK
Weight: 0.11 g

Hinge Bushing
Material: POM
Weight: 0.05g

Thermoplastic	Continuous Use °C	Glass Transition °C	HDT @ 264 psi °C	HDT @ 66 psi °C
PAI	250	275	279	–
PI	288	250	246	–
PES	117-204	224	204-238	216-238
PEI	117-204	213	199-216	204-227
PSO	149-171	190	171-182	177-188
PEEK	204-232	143	177-321	227-338
PPA	204-232	134	277-285	293-301
PPS	204-232	92	149-288	204-260