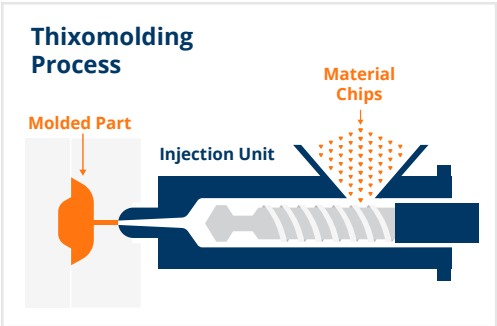
MANUFACTURING LOCATION: EAU CLAIRE, WISCONSIN I US

FREQUENTLY ASKED QUESTIONS: WHAT IS THIXOMOLDING?

This manufacturing process heats magnesium alloy chips to a semi-solid state and injects them into a mold under high pressure to form components.



Why Thixomolding?

- Lightweight parts
- High strength-to-weight ratio
- EMI/RFI shielding properties
- Helps reduce waste - 100% recyclable
- 96% to 99% density Heat dissipation
- Non-magnetic

How Does Thixomolding Compare to Other Processes?

	Thixomolding	Die Casting
Complexity	^	–
Thinner wall selections	^	v
Thixotropic material flow	^	v
Parts produced to NADCA precision tolerances	^	–
Longer tool life	^	v
Environmentally friendly	^	v

How Does Magnesium Compare to Aluminum?

- Reduce part weight: 33% lighter than aluminum
- Greater elongation as compared to aluminum: Magnesium 6% in 51 mm
- Longer tool life: Aluminum is more abrasive on tool steel resulting in even lower tool life

Phillips Medisize
a molex company

What Are the Philips Medisize Capabilities?

Press Tonnage	220 T, 650 T, 850 T, 1,250 T
Materials	AZ91D, AM60B, MgCarbonit[91]
Finishes	• Prime • Liquid paint • Powder coat paint • E-coat • Pad print • Laser etch • Plating • Conversion coating: – Alodine 5200 or equivalent (non-chromate) – Alodine 5900 or equivalent (trivalent chromate) – Tagnite, Anomag and Keronite
Secondary Operations	• Machining • Vibratory deburring • Shot blasting • Manual and robotic surface finishing • Form-in-place gasketing • Assembly • Helicoil installation
Certifications	IATF 16949, ITAR

What Are Some Industry Applications?

AUTOMOTIVE

- Instrument cluster display housings
- Head-up display housings
- Camera housings

CONSUMER

- Borescope housings
- Appliance motor and transmission housings
- Electronics housings

DEFENSE

- EMI/RFI shields
- Ruggedized laptop housings and components

MEDICAL

- Power generator housings
- Medical device housings
- Patient wearable device housings

To learn more about our diverse portfolio and our expertise in materials, injection molding and manufacturing, visit our website at **phillipsmedisize.com/non-medical.**

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