

Understanding Melt Temperature and Why It's Critical for Injection Molding



Melt plastic, mold plastic — pretty clear concept, right?

Not so fast.

The temperature melted resin reaches for injection molding means the difference between producing good parts or scrap. But measuring resin temperature for a given molding run has traditionally been conducted with less-than-reliable methods.

To measure resin temperature, a molding operator typically will insert a probe into a puddle of plastic—but the resulting temperature they record simply isn't accurate. Add to that the fact that the barrel temperature set for a given molding run, while related to melt temperature, does not indicate melt temperature in any way, shape or form.

Why?

Because according to plastics industry veterans, 70% of plastics heating and melting is generated by the mechanical action of the screw, and because screw rotation is really what drives resin temperature,

relying on the barrel temperature you've set on the machine, or a quick manual probe of the ejected molten plastic, simply doesn't provide an accurate temperature reading.

Additionally, when components such as the screw barrel or check ring begin to wear, operators often compensate for poor material flow by increasing screw speed or back pressure—changes that can generate even more heat.

What happens if you can't measure resin temperature correctly? You can't track part consistency from run to run—which is especially important for high-end medical molding or advanced molding with engineered resins.

That's where the simple, innovative Melt Temperature Measurement System (MTMS) has changed the game for injection molding.

The MTMS uses a magnetic puck that fits into the industry standard 4-inch location ring of your mold. To measure resin melt temperature, simply bring the nozzle in and shoot a shot. MTMS measures the temperature with a probe that sits securely in its

metal puck. That's it. In 5 to 10 minutes, with very little cycle interruption, you've got the most accurate resin melt temperature reading you've ever had.

To learn exactly how the MTMS works and how it keeps your injection molding production runs on track, read our extensive presentation "[Do You Know Your Melt Temperature?](#)"

Then, when you're convinced of what the MTMS can do for you, [simply click here to purchase the complete kit.](#)

[Contact us to learn more about MTMS.](#)