

# Scientific Cooling<sup>SM</sup> Class



## Course Description

This course is tailored for designers, mold builders, tooling engineers, and mold technicians who want to understand and control the effects of mold cooling resulting in a more robust mold design, mold build, and molding process.

Participants will learn the tools needed to analyze Heat Energy and the Mold Cooling Management required to produce consistent, profitable parts. Participants will learn to systematically challenge the design of new molds and uncover issues with existing molds through a development of best practices for Mold Cooling Management.

## Course Objectives

- Learn energy principles in relation to specific polymers.
- Understand how Heat Transfer and Energy Flow affect part quality and cycle time.
- Create and budget a heat budget understanding Energy Input, water cooling and other heat removal paths.
- Understand Reynolds Number and its relationship to Turbulent Flow.
- Learn Turbulent Flow's impact on sustainable molding practices.
- Study the 3 R's of Scientific Cooling to develop and maintain efficient cooling setup and processes.
- Learn the effects of water chemistry on cooling efficiency.
- Participate in "Hands-On" activities to reinforce learning objectives.
- Survey advanced methods – Flow Simulation, Thermal Imaging and High Temperature Cooling.
- Demonstrate an ability to apply Scientific Cooling principles in your molding process and earn a Scientific Cooling Certificate by successful class completion and achieving a minimum test score of 70%.

Price: \$1195	<i>Registration Deadline: May 26</i>
Class Date: June 20 & 21, 2023	
Location: MoldTrax, 2112 S Baney Rd., Ashland OH 44805	
Day 1, 9:00 AM to 5:00 PM Day 2, 9:00 AM until final exam is complete, approx. 3:00 PM	
Name	
Title	
Company	
Address	
Telephone	Email

### Cancelation policy:

Once confirmed you may cancel your class participation up to 3 weeks prior to class date without penalty.

Cancelations requested between 3 weeks and one week prior to class will be subject to 50% penalty.

Refunds are not available for classes canceled one week or less before class date. Check with the class coordinator before making non-refundable travel arrangements.

Burger & Brown Engineering, Inc., 4500 E 142<sup>nd</sup> Street, Grandview, MO 64030, USA  
Tel: 816-878-6675 – [www.smartflow-usa.com](http://www.smartflow-usa.com)  
send completed form to [jmckee@burgereng.com](mailto:jmckee@burgereng.com)