

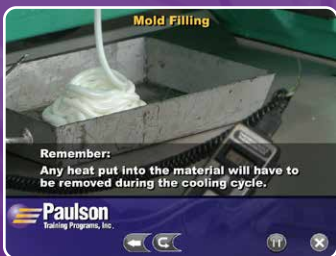
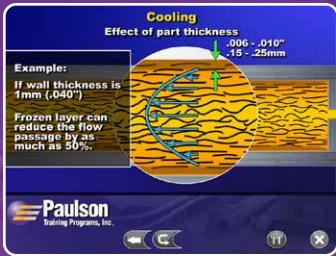
Technology of Injection Molding - Level 3

Course Description: Master Injection Molding

Dramatically increase the knowledge and effectiveness of your molding personnel with our most advanced injection molding course the Technology of Injection Molding Level 3. The highest level in our series of online injection molding training, this intensive course provides an in-depth understanding of the molding process for those wishing to be at the expert molding level. The lessons focus on the relationship between machine controls and plastic behavior and how to optimize the molding cycle.

This program builds on the knowledge gained from the Technology of Injection Molding – Levels 1 and 2 modules. Emphasis of this course is on building an in-depth understanding of the molding process from a science-based perspective, teaching how the effects of the Four Plastic Variables impact part quality. Once fully understood, there's no molding problem that can't be solved.

Expert level knowledge is vital to the success of today's molding operations. Increased customer demands and growing competition require a renewed commitment to developing the in-house resources that separate your production team from the competition's.



Recommended For: Set-up Personnel, Molding Managers, Molding Technicians, Process Engineers, Production Supervisors

Lesson 1

Inside the Injection Molded Part

Injection molded parts have a unique structure. Polymer molecules can be in three common arrangements; crystalline, amorphous and oriented. This course teaches how to understand and control the internal structure of molded parts so that consistent, high quality parts can be molded.

2

Plastic Flow: Understanding How Flow Affects the Molding Process

Plastic flow during mold filling is one of the most important controllable conditions affecting molded part properties. Just how does plastic flow? This lesson explains various flow behaviors including how molecular orientation, temperature, viscosity, and frictional heat generation affects plastic flow and final part properties.

3

The Effects of Temperature, Flow, Pressure and Cooling on the Molded Part

This lesson shows that although a typical molding machine has many machine controls, the plastic knows only these four primary plastic processing conditions. The interaction of these four primary plastic processing conditions; heating, flow, pressure and cooling determine the molded part properties. The molder must find the best machine settings that will get the best plastic processing conditions that will mold good parts.

4

The Requirements to Control Molded Part Quality

In this lesson we continue the discussion of the four primary plastic processing conditions. Here we examine the process starting with the melt temperature. The development of internal part stresses caused by pressure and cooling are explained, as well as cavity pressure effects on the final part properties.

5

The Expert Use of Molding Machine Controls

The molder who understands plastic behavior, the internal structure of molded parts and the effects of the machine controls on the plastic can often compensate for the variations in the plastic, the mold, the machine and production floor conditions. This lesson teaches the practical application of the information presented in the previous lessons. The effects of machine controls on plastic behavior are analyzed to show how control changes affect finished part properties.

Fully Interactive

Digital Video

3-D Animation

9+ Hours of Training



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Paulson's fully interactive training program explains the relationship between machine controls, plastic behavior and molded part properties in full motion video, text, audio and graphic animation.

To access a trial session
of a Paulson University
online course, call
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