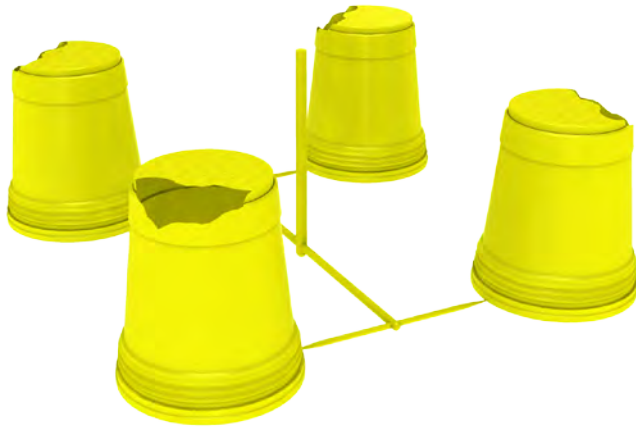


# POLYMERS: INJECTION MOLDING TROUBLESHOOTING

*eLearning courses designed to increase productivity and profits*



## Learning made Simple, Visual, and Interactive

Injection Molding Troubleshooting is an informative, advanced-level course on troubleshooting molded part defects created during the injection molding process. In this course, learners are introduced to the main problem areas that may affect molded parts during the injection molding process, including the mold, machine, material, and process. The course then discusses potential troubleshooting strategies, followed by a discussion of the most common defects that may affect a molded part. Learners in quality, manufacturing, sales or related, and research and development in the industry will find value in this course.

Credit Hours **2**

## Learning Objectives

- Recognize the main problem areas that can affect a molded part.
- Understand the potential troubleshooting strategies for eliminating defects.
- Identify the most common defects on molded parts.

## Table of Contents

### I. Injection Molding Main Problem Areas

- **Mold**
  - o Obstructed Cooling Lines
  - o Plugged Vents
  - o Damaged Tooling
  - o Partially Closed Runner Shut-Off
  - o Stuck Parts
  - o Plugged Gates
- **Machine**
  - o Unplugged Thermolator
  - o Unplugged Heater Bands
  - o Material Bridging in Feed Throat
  - o Turned Off or Unplugged Bulk Loading Dryer
- **Material**
  - o Contamination

- o Material Lot Change
- o Poor Mixing
- o Material Dust
- o Material Not Dry

### II. Troubleshooting Strategy

- **Process**
- **Step 1: Obtain Information**
- **Step 2: Check the Part Consistency**
- **Step 3: Review the Machine Cycle**
- **Step 4: Check the Process Settings**
- **Step 5: Determine Point in Process Where Molded Defect Occurs**

- **Step 6: Change Settings to Determine Influence on Molded Part Defect**

### III. Common Defects

- Angel Hair
- Burns
- Delamination
- Deformation
- Flash
- Jetting
- Plate-Out
- Short Shot
- Sink
- Splay
- Voids
- Warpage

