

## Course Duration: 2 days

The SolidWorks Plastics course teaches you how to use specialized simulation software tools to predict how melted plastic flows during the injection molding process. Predicting how the plastic will flow enables you to predict manufacturing defects such as weld lines, air traps, short shots, and sink marks. By predicting these defects, you can change the part or mold geometry, the processing conditions, or the plastic material itself to eliminate or minimize them, saving energy, material, time, and money. The SolidWorks Plastics course covers all the features and functions of both SolidWorks Plastics Professional (for part designers) and SolidWorks Plastics Premium (for mold designers).

**Prerequisites:** The SolidWorks Plastics course teaches you how to use specialized simulation software tools to predict how melted plastic flows during the injection molding process. Predicting how the plastic will flow enables you to predict manufacturing defects such as weld lines, air traps, short shots, and sink marks. By predicting these defects, you can change the part or mold geometry, the processing conditions, or the plastic material itself to eliminate or minimize them, saving energy, material, time, and money. The SolidWorks Plastics course covers all the features and functions of both SolidWorks Plastics Professional (for part designers) and SolidWorks Plastics Premium (for mold designers).

### Lesson 1: Basic Flow Analysis

- Basic Flow Analysis
- Stages in the Process
- Element Types
- Meshing
- The PlasticsManager Tree
- Input Options
- Gates
- Running a Flow Analysis
- Flow Results

### Lesson 2: Detecting Air Traps

- Detecting Air Traps
- Stages in the Process
- Air Traps
- Switching Modes for Design Changes
- Design Changes
- Parts Created Using Mold Design Tools

### Lesson 3: Detecting Short Shots

- Detecting Short Shots
- Stages in the Process
- Flow Settings
- Flow Front Central Temperature

### Lesson 4: The Model Manager

- The Model Manager
- Stages in the Process
- Using the Model Manager
- Copying Parts and Results
- Batch Manager
- Summary and Report

### Lesson 5: Gate Locations and Sink Marks

- Gate Locations and Sink Marks
- Stages in the Process
- Gate Selection Rules
- Sink Marks

### Lesson 6: Multiple Cavity Molds

- Multiple Cavity Molds
- Stages in the Process
- Mirroring Cavities
- Sketching Runners
- Runner Design
- X-Y Plots

### Lesson 7: Runner-Balancing

- Runner-Balancing
- Stages in the Process
- Local Refinement of Mesh
- Using Runner-Balancing

### Lesson 8: Gate Freeze

- Gate Freeze
- Stages in the Process
- Solid Mesh
- Pack Settings
- Flow and Pack Analysis
- Pack Results

### Lesson 9: Optimizing Cooling Time

- Optimizing Cooling Time
- Stages in the Process
- Multiple Gates

### Lesson 10: Using Inserts

- Using Inserts
- Stages in the Process
- Cavities and Inserts
- Materials for Inserts

### Lesson 11: Mesh Repairs

- Mesh Repairs
- Stages in the Process
- Element Issues
- Edit Mesh



#### Contact Details

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