

Autodesk Moldflow Training Course

Course Overview

Course Length: 16-Hours

- 16-Hours – 8 x 2-hour training sessions
- Remote training over MS Teams
- Sessions are recorded and download links for each session are provided for future use
- Training for up to 1-3 people
- Sessions can start within 7 days upon ordering
- Flexible sessions (for example, consecutive or Monday, Wednesday, Friday)
- Courses are private and topics can be customised to suit
- Includes Certificate of Completion

The Autodesk Moldflow Training Course provides practical instructor-led training for product designers, plastics engineers, manufacturing engineers, tooling designers, mold makers, and simulation specialists who need to predict and optimise plastic injection molding performance before tooling is manufactured.

This Autodesk Moldflow Course teaches participants how to analyse part manufacturability, predict filling behaviour, evaluate cooling performance, minimise warpage, reduce sink marks, optimise gate locations, and improve overall mould design using Autodesk Moldflow simulation technology.

Topics Covered

- Plastic injection moulding fundamentals
- Moldflow interface and workflows
- Material selection
- Fill analysis
- Packing analysis
- Cooling analysis
- Warpage prediction
- Gate optimisation
- Runner systems
- Cooling channel design
- Manufacturing validation
- Design optimisation
- Reporting and visualisation

Prerequisites

Participants should have a basic understanding of product design, manufacturing processes, or plastic injection molding principles.

Experience with Autodesk Inventor, Fusion, SolidWorks, Creo, CATIA, NX, or other CAD software is beneficial but not essential.

No prior Moldflow experience is required.

Training Guide Contents

Chapter 1: Introduction to Plastic Injection Moulding

- Plastic Injection Moulding Fundamentals
- Manufacturing Processes
- Moldflow Applications
- Simulation Workflows

Chapter 2: Autodesk Moldflow User Interface

- Interface Overview
- Project Setup
- Navigation Tools
- Analysis Workflow

Chapter 3: Model Preparation

- CAD Import
- Geometry Cleanup
- Model Simplification
- Mesh Preparation

Chapter 4: Material Selection and Databases

- Plastic Material Libraries
- Material Properties
- Material Selection Strategies
- Custom Materials

Chapter 5: Fill Analysis

- Flow Behaviour
- Fill Time Analysis
- Pressure Requirements
- Short Shot Prediction

Chapter 6: Gate Location Optimisation

- Gate Placement
- Gate Design
- Flow Balancing
- Manufacturing Considerations

Chapter 7: Packing and Holding Analysis

- Packing Profiles
- Pressure Distribution
- Shrinkage Control
- Quality Improvement

Chapter 8: Cooling System Analysis

- Cooling Channel Design
- Cooling Efficiency
- Cycle Time Reduction
- Thermal Management

Chapter 9: Warpage and Shrinkage Analysis

- Warpage Prediction
- Shrinkage Analysis
- Deformation Control
- Design Improvements

Chapter 10: Manufacturing Defect Analysis

- Sink Marks
- Weld Lines
- Air Traps
- Quality Validation

Chapter 11: Process Optimisation and Design Validation

- Design Studies
- Process Optimisation
- What-If Analysis
- Performance Improvements

Chapter 12: Reporting and Project Workshop**

- Results Interpretation
- Engineering Reports
- Design Recommendations
- Project-Based Simulation Workshop
- Commercial Outcomes

**Customised training and simulation studies based on commercial projects may take longer than 16-hours and hours required will be pre-determined prior to commencement of training.