

INTRODUCTION

Injection moulded parts are widely used in automobiles, consumer goods, medical parts, aircraft interiors and many more types of products. Parts that may vary in shape, size and complexity are manufactured using the Injection moulding process in a moulding machine.

The process involves the injection of plastic material into a cavity, where the material cools and hardens as per the configuration of the cavity. Injection moulding can be performed with a host of materials like elastomers, thermoplastic and thermosetting polymers. Moulds are made by a mould-maker (or toolmaker) from metal, usually, either steel or aluminium and precision-machined to form the features of the desired part.

The injection moulding process poses many challenges, which may lead to defects in the final parts. In order to successfully manufacture a moulded part, it is important to understand the possible defects, get an understanding of the parameters that control the moulding process, which could be incorporated at the mould design stage itself.

Keeping this in mind, IMTMA is organizing a two-day online training programme on Defects Analysis and Troubleshooting of Injection Moulded Plastic Parts.

FOCUS AREAS

The program is focused upon:

1. What is injection moulding?
2. Types of Injection moulding techniques
3. Types of moulds used in the Industry
4. DFMA in plastic moulding
5. What are the main factors causing defects?
 - The moulding machine
 - Injection mould
 - Operating conditions i.e., Pressure, Temperature, injection speed & time, etc,
 - Material
 - Design of product
 - Process management
6. Various defects, causes and solutions on:
 - Sink Marks
 - Weld lines
 - Streaks
 - Blistering
 - Gloss difference
 - Jetting
 - Short shots
 - Diesel effect
 - Over sprayed parts (Flashes)
 - Stress whitening / Cracking
 - Warpage
 - Hesitation
 - Over packing
 - Unbalanced flow
 - Ejector marks
 - Scratches on the parts
 - Dull spots
 - Deformations
 - Flaking
 - Cold slug
 - Drooling
7. Case studies from industries
8. Importance of analysis software before mould design

KEY TAKE AWAYS

At the end of the program, the participant shall be able to:

- Identify & prevent injection mouldings defects
- Understand root causes & address with suitable remedies
- Control procedures to achieve zero defects in moulding
- Understanding the importance of mould / die design during product design
- Importance of process simulation during die design

FEE PER PARTICIPANT (PER LOGIN)

Rs. 5500/-
+18% GST

**IMTMA Members/ Micro Companies/ Individuals/
Educational Institutions / Students/ IMTMA Non
Members/ Others**

USD 220/-
Overseas Participants

Group Concession : 10% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

FACULTY

The program will be delivered by **Mr. Joseph Abraham.**

Mr. Joseph Abraham is a professional with more than 38 years of experience in Tool Designing & Manufacturing, Plastic injection Moulding, Training, Quality Management, and Product Design & Development. He worked as a Vice-Principal with NTTF. He also worked as a Tool Room Manager with several organizations such as Balda Solutions, Malaysia, BPL Toolroom, Bangalore, and Tool Product Singapore. He currently provides training and tooling consultancy to several small-scale industries.

For Registration Contact

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