

# Course Information

## injection moulding driver licence®

**Course Fee :** RM 3,350 per student excludes GST

### Time Schedule:

#### Day 1 9:00 ~ 17:00

09:00 Pre test  
Summary and recap of course 1  
**10:00 Coffee break**  
Material Science 2  
Blends, fillers and additives  
Calculation of clamping force  
**12:00 Lunch Time**  
Injection compression moulding  
Cavity pressure  
**15:00 Coffee break**  
Mould technology  
17:00 End

#### Day 2 9:00 ~ 17:00

09:00 Periphery  
**10:00 Coffee break**  
Periphery  
**12:00 Lunch Time**  
Special process: multi-component technology  
In mould decoration IMD and in mould labelling IML  
**15:00 Coffee break**  
Moulding defects  
16:30 Summary of Day 1 & 2  
Examination  
Conclusion  
17:00 End

# Course Information

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Course	Course 2
Course Name	Injection Moulding Technology Intermediate
For	Parts designer, mould designer, mould maker, machine operators, plastic moulder, quality assurance personnel, production planner, shift supervisor, technical support, purchasing and sales personnel.
Target	Participants will gain knowledge on plastic material, processing data, material drying, injection moulding technology, filling row, moulding machine and mould technology, and injection moulding faults.
Requirement	Course 1

Group	Content
Material	Technical thermoplastics • additives
Machine	High performance plasticising unit • material and colour change • plasticising with barrier and mixing screw • use of mixing screw tip and mixing nozzle • calculation of clamping force
Mould	Mould transfer • hot runner system • mould and hot runner maintenance • types of gates • gate balance • venting • demoulding • dual component mould
Peripherals	Material preparation and conveying 2 • colour and additive mixing 2 • automation 1 • recycling
Process	Shearing • determine the holding time • determine the injection rate • pvT diagram • influence of shrinkage
Special process	Multi component • IMD / IML
Case studies	8 more errors in moulding parts



Bernd Fred Johannson (Dipl. Ing.) **Licensed Trainer / Accreditor**

Bernd graduated in Darmstadt, Germany in 1965 with a Dipl. Ing. Engineering.

His entire career has been in the plastic industry, taking leading positions in fields like plastic resin manufacturing, automotive moulding, plastic packaging, and production automation. It is no surprise that Bernd has diverse expertise in areas such as rotation molding, slush molding, injection molding, thermoforming, thermoset material manufacturing, PU foaming and mold making.

For over 25 years, Bernd is a member of VDI, the Association of German Engineers, and has patents and utility models in Injection Molding and Plastics Processing. He is well known in the lecture circuit, and has co-wrote for trade publications, including:

- Co-Author "Plastics Machine Guide", Issue 4, Carl Hanser Verlag, ISBN3-446-22042-9
- Co-Author "Optimization of Injection Molding", Carl Hanser Verlag, ISBN978-3-446-40977-4

Besides busy with Baltic Plastics Academy, Bernd is currently active in Senior Experten Service (SES) as a worldwide Senior Consultant Engineer for Plastics Processing Optimisation.



Wang Lo Chang, Robert **Licensed Trainer / Accreditor**

Robert graduated from Taiwan's Far East University as a Master of Mechanical Engineering. He has over 20 years of experience in the plastics industry, taking on senior roles in several East Asian companies. This vast experience ranged from management functions to mould making operations to moulding productions.

Throughout his career, Robert has been involved in education for the plastics industry. He was mentor and trainer for his staff in the early years. In 2002, he accepted an appointment by Taiwan's National Development Council to conduct plastics injection courses in the Dominican Republic.

Since 2010, besides serving as Board Chairman for a moulding company, Robert has also been conducting plastics injection courses at several universities in Taiwan, including at his alma mater, Far East University.

# Roadmap

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