

## >> Coperion know-how at your disposal: Seminars on Process Technology in 2025 for Engineering Plastics, Masterbatch Production and Powder Coating Compounding

### COURSE OBJECTIVES

- To provide process engineers and operation supervisors with an understanding of the fundamental and practical aspects of the design and operating mode of a ZSK twin screw compounder
- To update knowledge in the field of processing engineering plastics

### LANGUAGE

All courses will be held in English if there is no other predefinition.

### TRAINER

Johannes Donner, Dipl.-Ing. (FH)  
Senior Process Engineer Engineering Plastics  
Coperion GmbH, Stuttgart, Germany



### DATES AND LOCATION

#### Presence Session 1:

- March 4-5, 2025
- 8:30 am-4:30 pm (Central European Time)
- Location: Coperion GmbH, Theodorstrasse 10, 70469 Stuttgart

#### Presence Session 2:

- September 16-17, 2025
- 8:30 am- 04:30 pm (Central European Time)
- Location: Coperion GmbH, Theodorstrasse 10, 70469 Stuttgart

### SEMINAR FEE

EUR 1.330,- per trainee. This price will be charged plus VAT.

### ATTENDEES WILL RECEIVE

- Coloured Coperion textbook in PDF; download provided by Coperion.
- Certificate upon completion of the course

#### At **Presence** Session 2:

- Small breakfast, lunch and drinks during a.m./p.m. breaks

### INDIVIDUAL SEMINARS

In addition to the regularly scheduled classes in Stuttgart, Germany, courses can be held at your company's site.

Training contents can be modified according to your objectives. Having discussed your needs, we work out a customized training schedule and pricing for you.

## >> Content. Seminar on Process Technology for Engineering Plastics

### **BASIC TECHNOLOGY**

- Basic process knowledge in the field of compounding engineering plastics
- Self cleaning screw profile of twin screw extruders
- Development of the ZSK twin screw extruders
- Screw elements: layout and definitions
- Working principle of screw elements
- Compounding plants and comparison of different extruder systems
- Process sections inside of the ZSK
  - Feeding
  - Melting
  - Degassing
  - Metering
  - Screw tip design

### **EQUIPMENT RELATED**

- Feeding
- Drive section
- Discharge section
- Screen changer
- Pelletizer
- Interlocks
  - Interlock sequences
  - Start up sequences
- Materials for different applications

### **PROCESS**

- General layouts for different polymers
  - Feeding
  - Melting
  - Degassing
  - Metering
  - Screw tip design
  - Premix
  - Color-matching
  - Split-feed
- Process variables
  - Specific energy influence of rate and screw speed
  - Motor load (torque)
  - Temperature profile: influence of the various operating parameters
- Latest Coperion developments and insights in the field of
  - Compounding Engineering Plastics
  - Masterbatch Production
  - Powder coating Compounding
- Scale-up
  - Methods to design a compounding line
  - Product properties
  - Interlock sequence
  - Specific energy
  - Melt temperature.
- Trouble shooting
  - Operating window
  - Analysis of rate limitations
  - Torque limitations
  - Melting limitations
  - Vent limitations
  - Feed limitations
  - Pressure limitations.

### **CONTACT INFORMATION**

For more information about Coperion's seminars please contact:

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