TechnoBiz Training Program

Twin-Screw Extrusion for Plastics Compounding

23-24 March 2017, Kuala Lumpur, Malaysia

Organized by: **Plastics Industry Department @ TechnoBiz**

Event Code: PIDT-17-0163

This two-day course focuses on the application of intermeshing co-rotating extruders in polymer compounding applications. Training is directed towards machine operators, process engineers and supervisors as well as product development scientists in both research and manufacturing environments. Participants are reminded that the goal of compounding is to produce properties, not pellets. The goal of this course is to explain how twin-screw extruders create properties. Interactions between screw design, raw materials and process parameters are presented in such a way that both experienced users and novices will benefit. Common unit operations are explained in practical terms with no prior knowledge or experience required. Upon completion of the training, participants will return to the workplace armed with techniques to improve quality, production rate and yield.

COURSE CONTENTS

Twin-Screw Extruder Design

- Introduce concepts responsible for creating properties on co-rotating twin screw extruders (Degree-of-fill, shear rate, residence time/residence time distribution, heat transfer, Dispersive vs. distributive mixing)
- Influence of extruder configuration on compounding performance (How machine design impacts mixing, What is optimum extruder configuration?)

Process Design

- Description of unit operations: feeding, melting, mixing, venting, pressurization
- Introduction of the process model – role of specific energy
- Interaction of process parameters
- Process optimization

The "Art" of Screw Design

- Functional description of the working principles for each element type (conveying, mixing)
- Overview of available screw element designs
- Characterization of dispersive and distributive mixing elements
- Selection of the optimum screw type for each of the unit operations

Industry Best Practices

- Guidelines for set-up, operation and maintenance of your twin-screw equipment

Process Troubleshooting

- Diagnosis of compounding instabilities with respect to residence time (Consistency, Reproducibility

COURSE INSTRUCTOR – ADAM DREIBLATT

Mr. Adam Dreiblatt has over thirty five years of experience with twin-screw extrusion as a consultant, teacher and practitioner. His hands-on experience processing a wide variety of materials across diverse industries and extruder platforms provides him with unique capabilities to develop, optimize, scale-up and troubleshoot most any extrusion process. Adam Dreiblatt is Director of Process Technology for CPM Century Extrusion. He had worked with Extrusioneering International, Novon Products Group, Division of Warner Lambert and Werner & Pfleiderer Corporation (now known as Coperion). His 30+ year career in twin-screw extrusion has always been at the forefront of new technology and practical applications in the food, pharmaceutical and polymer processing industries. Adam has become highly regarded for his training seminars and workshops over the past 20 years. He has authored and presented numerous technical papers, contributed several chapters in reference texts and published many articles on various aspects of twin-screw extrusion.

Registration Fee

- 750 US$/Person (Register before 20 Feb 2017)
- 850 US$/Person (Register after 20 Feb 2017)

Remarks: Registration Fee includes documents, lunch and refreshments. Registered participants are required to arrange their travel and accommodation arrangements. Payment is required with registration. Group Registration: 5% discount on total registration for the group of three delegates from the same company.

To register, please contact

Plastics Industry Department @ TechnoBiz
TechnoBiz Communications Co., Ltd.
2521/27, Lardprao Road, Khlongchaokhunsingha Wangthonglang, Bangkok 10310 Thailand
+66-2-933 0077 **Cell:** +66-84-658 1444 **Fax:** +66-2-955 9971
training@technobiz-asia.com
www.plastics-industry.org