

Advanced Extrusion Seminar, May 6-7, 2013

Plastics compounding

- What is plastics compounding?
- Compounding machinery
- Plastics used in compounding
- Fillers used in compounding
- Direct extrusion
- Starve feeding vs. flood feeding
- Degree of fill

Twin screws for compounding

- Twin vs single screw extruders
- Co-rotating extruders
- Counter-rotating extruders
- Barrel heating and cooling
- New TSE developments

Functions of co-rotating TSE

- Feeding and solid conveying
- Melting
- Melt conveying
- Mixing
 - Distributive mixing
 - Dispersive mixing
- Degassing
- Viscous dissipation
- Pressure generation
- Computer simulation

Screw design for co-rotating TSE

- Basic screw geometry
- 1-, 2-, and 3-flighted screws
- Basic geometrical relationships
- Conveying elements
- Mixing elements
- Special screw elements
- Screw design principles
- Proper assembly of screw elements
- Screw design examples
- Materials of construction
- Coatings and surface treatment
- Computer aided screw design

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Clearwater Beach, FL
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Scale-up of co-rotating TSE

- Volumetric scale-up
- Specific energy consumption
- Shear rate
- Heat transfer
- Residence time
- Examples

Operating twin screw extruders

- Safety issues
- Starting the extruder
- Screw speed and degree of fill
- Temperature controllers
- Current limit protection
- Shut-down

Troubleshooting TSE

- Mechanical problems
 - Screw wear
 - Barrel wear
 - Overloading the motor
 - Excessive torque on screws
- Functional problems
 - Venting problems
 - Feed problems
 - Pressure development
 - Poor mixing
- Quality problems
 - Poor dispersion
 - Degradation
 - Filler agglomeration

Maintenance guidelines

- Safety issues
- Gear box maintenance
- Screw drive motor
- Vacuum system
- Screw and barrel sections
- Preventive maintenance

The course fees are:	Through April 5, 2013	After April 5, 2013
Advanced Extrusion:	\$850.00	\$950.00
Twin Screw Compounding:	\$850.00	\$950.00
If taking 2 courses:	-\$100.00	-\$100.00
3 rd attendee discount (5%):		
Total:		

A 5% discount will be given for the 3rd and up attendees from the same company. The course fees include lunch for each day and the handout material.

Cancellations: A refund, less \$100.00 cancellation fee, will be made if the registration is cancelled in writing by or on April 5, 2013 REE Inc. reserves the right to cancel one or more seminars or substitute instructors. Should this occur the attendees will be notified. We do not rake any responsibility for penalty fees or any other cost that may be incurred due to cancellation. We recommend that you book travel with refundable fares. Registrants who fail to attend are liable for the fees of the course registered for.

Fax registration to: 530-269-1084 or register on-line at www.rauwendaal.com

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