

Mixing and Compounding Seminar

By Dr. Chris Rauwendaal, REE, Inc.

1. Introduction to Mixing

- Main types of mixing
- Distributive and dispersive mixing
- Compounds, blends, and alloys
- Basic mixing mechanisms
- Cross sectional mixing versus axial mixing
- Overview of Mixers

2. Evaluation of Mixtures

- Intensity of segregation
- Texture and scale of segregation
- Measurement techniques
- Level of mixing required

3. Distributive Mixing

- Solid-solid mixing
 - Characteristics of particulates
 - Segregation of particulate materials
 - Mixers for particulate solids
- Liquid-liquid mixing
 - Laminar mixing
 - Efficient distributive mixing

3. Dispersive Mixing

- Solid-solid mixing
 - Strength of cohesive clusters
 - Mixers for solids
 - Size reduction machinery
- Solid-liquid mixing
 - Pretreatment of solids
 - Wetting
 - Size reduction
 - Flocculation
- Liquid-liquid mixing
 - Mixing in miscible systems
 - Mixing in immiscible systems
 - Breakup
 - Coalescence

4. Single Screw Extruders (SSE)

- Flow and heat transfer in SSE
- Distributive mixing in SSE

- Distributive mixing sections
 - Cavity mixers
 - Pin mixers
 - Slotted flight mixers
 - Variable depth mixers
 - Axial mixing devices
- Dispersive mixers
 - Blister rings
 - Fluted mixing sections
 - Planetary gear mixers

5. Reciprocating Extruders (Kneader)

- Principle of operation
- Mixing mechanism in Kneader
- Modeling of Kneader
- Machinery and applications

6. Twin Screw Extruders (TSE)

- Introduction
- Co-rotating twin screw extruders
 - Main geometries
 - Characteristics
 - Main applications
- Counter-rotating twin screw extruders
 - Main geometries
 - Characteristics
 - Main applications
- Overview twin screw extruders

7. Internal and External Mixers

- External mixers
- Batch internal mixers
- Continuous internal mixers

8. Static Mixing Devices

- Introduction
- Geometry
- Functional performance characteristics
- Mixing materials with different viscosities
- Miscellaneous considerations

The course fees are:	Prior to Mar 8	Mar 8-21	After Mar 21
Mixing and Compounding:	\$650.00	\$750.00	\$850.00
3rd attendee discount 5%:			
Polymer Extrusion Bk 			
\$75.00			
Polymer Mixing 			
\$55.00			
Total:			

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

Cancellations: A refund, less a \$100.00 cancellation fee, will be made if the registration is cancelled in writing by or on March 7, 2008. Rauwendaal Extrusion Engineering, Inc. reserves the right to cancel one or more seminars or substitute instructors. Should this occur the attendees will be notified. We do not take 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

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