

Profile Extrusion

(19 March 2008, Century Park Hotel, Bangkok)

Course Instructor : Mr. Daniel Cykana
Director of Extrusion Engineering
Bemis Manufacturing Co., USA

COURSE OUTLINE:

1. **Introduction** (Markets served, Materials for Profile extrusion)
2. **Extrusion Line Layout** (Extruder requirement, Ancillary equipment)
3. **Part Design Considerations - Profile Die Design** (Types of profile dies, Drawdown ratios, Critical design parameters)
4. **Sizing** (Cooling, Differential sizing, Calibration)
5. **Processing** (intermediate to advanced)
6. **Troubleshooting** (Profile extrusion process problems)

Daniel Cykana is the Director of Engineering- Extrusion for the E&CT (Extrusion and Component Technologies) Division of Bemis Manufacturing Company where he mentors the Engineering and technical staff in Die Design, New Product Development, Advanced Technology and Processing. Daniel has dedicated his career to plastics processing, primarily extrusion, which spans 42 years. The first third of his career (14 years) was with Northland Plastics where he was a Development Technician, then Plant Manager and finally Director of Manufacturing. The last 29 years (1978-2007) at Bemis Manufacturing he moved from Technical Development Manager, to Engineering Manager to Director of Engineering. Daniel is a Senior Member in the Society of Plastics Engineers for the past 25 years. For the past 10 years he served as a Director of the Extrusion Board of Directors. In 2004 he was TPC (Technical Program Chair), and Chair of the Extrusion Division Board of Directors 2005-2006. In 2006 he was appointed to the SPE Executive Committee for a three-year term. Dan has held numerous Chair positions while serving on the Board of Directors, International Chair, Seminars Chair, Honored Service Chair, and PROCON Chair. As a frequent speaker for the SPE, Daniel also gives Processing Seminars for the SPE and assists Dr. Chris Rauwendaal in his seminars sessions. Daniel has published numerous articles, as well as being a contributing author to The Extrusion Process and Troubleshooting Guide.

Dr. Chris Rauwendaal - the President of Rauwendaal Extrusion Engineering Inc., USA since 1990. He was previously with American Enka Company and Raychem Corporation. Chris received a M.Sc from Delft University and Ph.D in Polymer Processing from Twente University in the Netherlands. Chris has been a top seminar instructor for more than 25 years. He has taught with SPE, UWM & UC Berkeley & teaches many in-house courses. He is a well known plastics author. Chris has 30+ years experience in the plastics industry. His experience is in a wide range of extrusion operations, including fiber spinning, film, sheet, tubing, medical tubing & profile extrusion, coextrusion, and reactive extrusion. He has worked on both practical and theoretical problems such as screw & die design, troubleshooting, modeling and computer simulation, material analysis, failure analysis, etc. Chris has authored 6 books on extrusion and related fields. Since 1990 he has been President of Rauwendaal Extrusion Engineering, Inc., a company that provides custom extruder screws and other extrusion hardware, training programs, engineering & expert witness services to the plastic industry. With screw design as his specialty, over the past 5 years REE had developed patented technologies in the following areas: Elongational Mixing Devices, Mixing non-return valves, Single screw compounding extruder, Cooling screws for foam extrusion .

Troubleshooting Extrusion Problems

(20-21 March 2008, Century Park Hotel, Bangkok)

Course Instructor : Dr. Chris Rauwendaal
President, Rauwendaal Extrusion Engineering Inc., USA

COURSE OUTLINE :

1. **Requirements for efficient troubleshooting** (Instrumentation, Understanding the process, Collection of historical data, Condition of the equipment, Information on the feedstock)
2. **Tools for troubleshooting** (Temperature measurement devices, Data acquisition systems, Microscopy, Thermochromic materials, Thermal analysis)
3. **Systematic troubleshooting** (Upsets versus development problems, Troubleshooting techniques - Brainstorming sessions, Flow charts, Fishbone diagrams, Machine related problems -The drive system, The feed system, The heating and cooling system, Screw binding - Mechanism of screw binding, Solving screw binding problems)
4. **Polymer degradation** (Thermal degradation, Mechanical degradation, Chemical degradation, Effect temperature and residence time, Melt temperatures in extrusion, Residence times in extrusion, Solving degradation problems)
5. **Extrusion instabilities** (Frequency of instability—High frequency instabilities, Screw frequency instabilities, Low frequency instabilities, Very slow fluctuations, Random fluctuations ; Functional instabilities - Solids conveying problems, Melting related problems, Melt conveying problems, Mixing related instabilities, Solving extrusion instabilities)
6. **Air entrapment** (Mechanism of air entrapment, Avoiding air entrapment, Removing entrapped air)
7. **Gel problems** (How and where gels can be produced, Gels created in polymerization, Gels created in the extrusion process, How to measure gels, Solving gel problems)
8. **Die flow problems** (Melt fracture, Die lip buildup, V- or W-patterns, Specks and discoloration, Die lines and weld lines, Coextrusion problems, Solving die flow problem)
9. **Wear problems** (Corrosive wear, Abrasive wear—Misalignment, Screw deflection, Abrasive fillers, Solving wear problems)
10. **Case studies** (Participants are encouraged to bring actual extrusion problems to the seminar for a hands-on application of the material presented)

Training Programs - Registration Form

Profile Extrusion (19 March 2008, Century Park Hotel, Bangkok)
Troubleshooting Extrusion Problems (20-21 March 2008, Century Park Hotel, Bangkok)



Please register the following delegate (s) for the following training programs:

- Profile Extrusion (19 March 2008)
- Troubleshooting Extrusion Problems (20-21 March 2008)
- Both Training Courses

Organization Name :

Delegate Name 1 : Position

Delegate Name 2 : Position

Delegate Name 3 : Position

Delegate Name 4 : Position

Delegate Name 5 : Position

Contact Address

Organization

Address

.....

.....

Tel Fax

Email

Contact Person

Position

Billing Address (if different)

Organization

Address

.....

.....

Tel Fax

Email

Contact Person

Position

Registration Fee (per delegate)

Profile Extrusion

350 US\$

Troubleshooting Extrusion Problems

500 US\$

Fee includes lunch & refreshments and a copy of printed conference proceedings

Payment Method

Bank Transfer to Bangkok Bank, A/C No: 177-0-65819-1
A/C Name :TechnoBiz Communications Ltd., Part.
Branch : Ratchada-Lardprao Road, Bangkok, Swift: BKKBTHBK

Credit Card Visa Master

Card Number

Cardholder's Name

Expiry Date

Last 3 digits on Signature Panel

Cardholder Signature

Date

Please send registration form to

Plastic Technology Asia Magazine
TechnoBiz Communications Ltd., Part.
300/53, Soi Lardprao 35/1, Lardprao Road
Chandrakasem, Chatuchak, Bangkok 10900 THAILAND
Tel: +66-2-938 2315 Fax: +66-2-513 1301 Cell: +66-84-658 1444
Email: training@technobiz-asia.com

Cancellation Terms : If you are unable to attend , a substitute delegate is welcomed at any time. Please inform us in writing at least 7 days prior to the conference date. A full refund less 25% administration fee will be made for the cancellation received in writing on or before 15 Feb 2008. Cancellation received after this date will be liable for the full registration fee. A complete set of documentation will however be sent to you.

Conference Venue - Century Park Hotel, Bangkok

The conference will be held at

Century Park Hotel, Bangkok

9 Ratchaprarop Road, Pratunam-Victory Monument

Bangkok 10400, Thailand

Tel : (66) 02-246 7800, 02-640 0630

Fax : (66) 02-246 7197, 02-246 4583

E-mail : info@centuryparkhotel.com

Website : www.centuryparkhotel.com

Century Park Hotel Bangkok, a Four-Star city hotel, 24-storey and 380 well appointed Superior, Deluxe, Grand Deluxe rooms, Junior Suites and Executive Suites with a full range of international standard amenities. Located in the Victory Monument commercial and shopping area of Bangkok, 30 minutes distance by car to Suvarnabhumi international airport, short walking distance to the Mass Transit system (city train) and other major tourist attractions.

Room Reservation at Century Park Hotel:

Century Park hotel offers special discounted room rates for the delegates of “Plastic Technology Asia” conference. Please send reservation enquiries to Ms. Jiraporn / Ms. Paramee (email: bq.centuryparkhotel@gmail.com) and kindly refer “TechnoBiz” while booking accommodation at Century Park Hotel to get special rate.

Alternate Options:

1. Ibis Siam Hotel (Accor Group)

If you are looking for economical hotel and near to conference venue, we recommend you to reserve your accommodation at Accor Group **Ibis Siam** Hotel. Please send reservation enquires to Sales Dept at Tel: 66-2-209 3888 / Email: salescorp05@ibisthailand.com. Please visit www.ibisthailand.com for more information. Please refer “TechnoBiz” while booking as well as make sure the hotel is located near to Victory Monument or Century Park Hotel. This group has hotels at different locations in Bangkok.

2. Asiarooms.com

Please visit www.asiarooms.com for the information on various hotels located in Bangkok.

Sponsorship Opportunities

A limited number of high profile cost effective sponsorship opportunities are available to maximize your corporate profile at this important event. **Our standard sponsorship package costs 7,000 USD.**

This package includes

1. 9 sq.meter standard booth (please download floor plan for sponsors booth location)
2. Logo display as sponsor in proceedings, promotional leaflets, conference bag
3. Web link to conference website
4. 1 Full Page color advertisement in Proceedings;
5. Banner in Conference Room
6. 4 Conference delegate tickets
7. 200 Words of sponsor message in the conference proceedings,
8. Product brochure insertion in conference bags of all delegates etc.

For more information, please contact Conference Manager (plastechnasia@technobiz-asia.com or Tel: 662-938 2315 Cell: 66-84-658 1444).