



# PLASTICS TECHNOLOGY

## An Intensive Training Course



This course offers a thorough and comprehensive coverage of the main aspects of plastics materials, as well as the major fabrication processes, with emphasis on injection moulding, extrusion and compounding, along with additives, process ancillary equipment and testing.

Organised by



### CHATSWORTH ASSOCIATES



*"Strategies for the Continuous Pursuit of Knowledge"*

in association with enys international pte ltd

#### DAY 1:

##### **I. Introduction**

Definitions  
Brief History of the Plastics Industry  
Petrochemicals & Monomers  
Basic Polymerization  
The Plastics Industry in ASEAN

##### **II. Plastic Materials: Manufacturing Process, Types, Properties & Applications**

Commodity Plastics: PE, PP, PVC, PS, etc.  
Engineering & Performance Plastics: ABS, PC, PA, Polyesters, PEEK etc.  
Thermoplastic Elastomers: TPO, TPV, SBS, TPU etc  
Thermoset Materials: Phenolics, Amino Resins, Epoxies & Unsaturated Polyesters

##### **III. Plastic Additives (Compounding Ingredients)**

Pigments & Organic Dyes  
Fillers: Extenders & Reinforcing Materials, Antioxidants  
Special Ingredients:  
> Flame Retardants,  
> Conductive Materials  
> Nucleating Agents etc.  
Processing Aids  
Plasticizers  
**PVC Compounding**

#### DAY 2:

##### **IV. Compounding Equipment & Operations:**

Single & Twin Screw Extruders  
Kneaders & Other Mixing Equipment  
Pelletizing Equipment  
Compounding Plants, Bulk Handling & utomation

##### **V. Thermoplastic Processing**

Injection Moulding Machines & Operations:  
> Material/Machine relationships &  
> Flow Behaviour  
> Multi-Component Injection Moulding  
> Novel Injection Moulding Technologies  
> Costing  
Blow Moulding  
Film Extrusion & Bag Making  
Profile & Sheet Extrusion  
Thermo/Vacuum Forming  
Calendering, Laminating, Rotational Moulding  
Finishing of Plastic products  
Ancillary Equipment & Materials Handling

##### **VI. Thermoset Plastic Processing:**

Compression, Transfer and Injection Moulding  
Bulk and Sheet Moulding Compounds  
Liquid Injection & Reaction Injection Moulding  
Fibre Reinforced Plastics (FRP) / Pultrusion

##### **VII. Testing of Plastics:**

Preparation of Specimens and Conditioning  
Physical properties:  
> SG, Water Absorption, Shrinkage,  
> Tensile and Flexural Properties:  
> Hardness & fatigue etc.  
> Impact Strength  
Thermal Properties:  
> Melt Flow, Specific Heat  
> Heat Deflection Temperature (HDT) & Softening Point etc  
Optical Properties: Gloss; Colour etc  
Electrical Properties: Volume & Surface Resistivity etc  
Flame Retardancy & Chemical Properties.

**SEPT 2<sup>ND</sup> & 3<sup>RD</sup> 2011**

**Bangkok International Trade & Exhibition  
Centre (BITEC) – Rm: MR211  
Bangkok, Thailand**

**See attached Registration Form:**

For further details please contact:

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# Plastics Technology

## An Intensive Training Course

September 2<sup>nd</sup> & 3<sup>rd</sup>, 2011

Bangkok International Trade & Exhibition Centre, (BITEC), Thailand

### REGISTRATION FORM (PT26) – Please photocopy if more registrants

Please print/type your personal particulars clearly:

(1) Name (Mr/Ms/Dr):	Position:	
(2) Name (Mr/Ms/Dr):	Position:	
(3) Name (Mr/Ms/Dr):	Position:	
Company Name :		
Address :		
Contact Person :		
Tel :	Fax :	Email:

Fee per person: SGD\$980.00 nett

Discount : Fee only SGD\$880.00 if payment received by **August 12<sup>th</sup> 2011**

Discount : Fee only SGD\$880.00 per person, for groups of 3 or more persons from the same company.

Cheque made payable to “Chatsworth Associates Pte Ltd”

Bank Draft / TT     InterBank Giro     Others

Development Bank of Singapore, Parkway Parade Branch,  
Account # 027-900825-3  
Swift Code: DBSSGSG

Please email or fax completed registration form and payment details to:

To: **Chatsworth Associates Pte Ltd**

Blk 109, #03-217, Lengkong Tiga, Singapore 410109

Attn: Dr Phil Adams on Tel: +65 6743 6149 / Fax : +65 6743 6158

e-mail: [padams@chatsworth-group.com](mailto:padams@chatsworth-group.com)

*Delegates are encouraged to register and pay early to secure their seats and numbers can be confirmed for venue, printing, F & B, logistics arrangements. On confirmation of registration, all payments must be received by Aug 12<sup>th</sup>, otherwise the organisers reserve the right to withdraw registrant. Full refund will be given (less 20% handling charge) if requests for cancellation are received, in writing, by August 19<sup>th</sup>. Thereafter, fees paid are not refundable although the person registered can send a substitute. However the organisers must be informed of such substitution by August 19<sup>th</sup>. The organisers reserve the right to alter published programme, and of cancellation. Full refund will be given to the registrant if the course is cancelled.*