



Chatsworth●Hall

“Strategies for the Continuous Pursuit of Knowledge”

“Plastics Technology” An Intensive Training Course”

Kuala Lumpur Convention Centre
Kuala Lumpur City Centre, Malaysia

Monday & Tuesday, July 19th & 20th, 2010

Jointly Organised and Presented by:

Dr Phil Adams



Mr Sam Angove

enys international

NB: Previous Courses run by Chatsworth Hall have received full support from the Malaysian HRDB

Supported by:



The Plastics and Rubber Institute of Malaysia



The Plastics and Rubber Institute of Singapore

Plastics Technology

An Intensive Training Course

Introduction:

Due to numerous and encouraging requests for a fundamental course on plastics technology, this course is now into its 23rd session, having been run in SE Asia, both as open courses and in-house courses. It offers a thorough and comprehensive coverage of the main aspects of (i) plastics materials – commodity and engineering thermoplastics and thermosets; (ii) additives; (iii) compounding technology, (iv) the major fabrication processes and (v) process ancillary equipment and plastics testing.

It will therefore serve a wide range of interest groups from non-technical personnel working within the plastic and related industries – including OEM companies engaged in electronics manufacturing, medical devices, packaging, telecommunications etc - to technical personnel and sales staff, already knowledgeable in their own field of application, yet who may require a refresher course or more fundamental coverage of other aspects of plastics technology – as such, though not specifically aimed at process personnel, it will benefit higher level engineering and management staff.

About the Workshop Organisers / Leaders :

Dr Phil Adams is CEO of The Chatsworth Group, a group of companies engaged in market research, conference organization and executive recruitment, focused on the plastics industry in Asia. He has 35 years experience within this industry in Asia, and has worked in a variety of senior management positions within such companies as GE Corporate Research and Development (GE USA Asia Co); the Dexter Corporation, Nypro Inc and UFE Inc, prior to establishing his own consulting and market research company in 1990. During this period he was also Adjunct Associate Professor (R&D) at the Nanyang Technological University, Singapore.

Dr Adams graduated in Plastics Engineering from the Polytechnic of the Southbank, London, and has postgraduate degrees in Polymer Physics from UMIST. He is Founder, past-President and Honorary Life-Vice President of the Plastics and Rubber Institute of Singapore, and is also a Fellow of the Plastics and Rubber Institute in Malaysia, a past Fellow of the Institute of Materials, Minerals and Mining and a Senior Member of the Society of Plastics Engineers, USA. Dr Adams currently serves as a Member of the Advisory Committee for curriculum development in the Singapore Polytechnic School of Chemical and Life Sciences and was also involved in the Singapore government's Chemical Standards Committee and was past Chairman of the Plastic Packaging Standards Committee.

Sam Angove is the Managing Director of enys international pte ltd., a Singapore based polymer consultancy practice focused on the Asia Pacific Region. He is also an Associate of Nexant Inc/Chem Systems an international consultant on Oil & Gas, Petrochemicals, Oil Refining, Specialty Chemicals and Finance. Sam has 45 years experience in the polymer industry that includes holding senior positions in the Polysar Group (now Nova and Bayer), a multinational company where he has directed Technical, Marketing & Sales, Materials Management, Business Planning & Development and Corporate Strategy functions and he was the General Manager of an international polymer business.

He has lived and worked in Asia, the Americas and Europe and has lectured extensively worldwide on rubber and plastics technology, marketing, economics and strategic planning etc. His other activities include being a founder member of the Institution of the Rubber Industry in Malaysia and a past chairman of the Plastics and Rubber Institute (Singapore). Sam graduated in rubber and plastics science and technology at the National College of Rubber Technology, London and in International Business at the Centre D'Etude Industrielle, Geneva, Switzerland. He is a Honorary Life Vice-President of the Plastics and Rubber Institute in Malaysia, Fellow of the Plastics and Rubber Institutes in Malaysia and Singapore, a Fellow of the Institute of Materials, Minerals and Mining and a member of the Society of Plastics Engineers, USA.

Course Outline:

NB: *Course timing will vary depending on discussion and content included.*

DAY 1: Monday, July 19th, 2010

08:00 Registration

09:00 Introductions and Review of Course Objectives

SESSION 1 - INTRODUCTION:

- ❖ Definitions;
- ❖ Brief History of Plastics;
- ❖ Petrochemicals and Monomers;
- ❖ Basic Polymerization.
- ❖ The Plastics Industry in ASEAN;

SESSION 2 - MATERIALS, PROPERTIES AND APPLICATIONS:

- ❖ Thermoplastics;
 - Commodity Resins e.g. PE, PP, PVC, PS, etc
 - Engineering Resins e.g. ABS, PC, PA, Polyesters, etc.
- ❖ Thermoplastic Elastomers;
 - SBS; SEBS; TPO; TPV; TPU etc.
- ❖ Thermoset materials:
 - Amino Resins e.g. Ureas & Melamines; Phenolics; Epoxies, etc.

SESSION 3 - PLASTIC ADDITIVES:

- ❖ Additives and Compounding Ingredients
 - Colours and Masterbatches
 - Fillers – Extenders and Reinforcing Agents
 - Functional Fillers e.g. antioxidants; flame retardants; conductives, etc
 - PVC Compounding and Effects of Plasticizers.

DISCUSSION & QUESTION SESSION – END OF DAY 1.

Course Outline ... cont

NB: *Course timing will vary depending on discussion and content included.*

DAY 2: Tuesday, July 20th 2010

SESSION 4 - FUNDAMENTALS OF PLASTIC COMPOUNDING:

- ❖ Equipment Overview:
 - Single Screw & Twin Screw Extruders,
 - Mixing and Blending Systems, etc
 - Pelletizers; Melt Pumps; etc

SESSION 5 - THERMOPLASTICS PROCESSING:

- ❖ Injection Moulding Technology overview:
 - Multi-component Moulding
 - Process Optimisation,
 - Basic Trouble-shooting,
 - New Injection Moulding Technology
- ❖ Blow Moulding;
- ❖ Film and Profile Extrusion
- ❖ Thermo / Vacuum Forming;
- ❖ Rotational Moulding;
- ❖ Calendering; Laminating; Finishing;
- ❖ Material Handling and Ancillary Equipment

SESSION 6 - THERMOSET PLASTICS PROCESSING:

- ❖ Injection, Compression and Transfer Moulding;
- ❖ BMC/SMC; Foam Processing; RIM; FRP; Pultrusion

SESSION 7 - MATERIALS TESTING:

- ❖ Testing of Plastics
 - Raw Materials and Finished Products

SESSION 8 - APPLICATION STUDIES:

DISCUSSION & OPEN QUESTION SESSION

CLOSE

Chatsworth•Hall Pte Ltd

Chatsworth•Hall Pte Ltd is a consulting company engaged in all aspects of training and technology transfer related to advanced materials and process technology. Chatsworth•Hall is dedicated to assisting companies acquire the latest knowledge and cutting-edge expertise from leading R&D establishments and international companies from around the globe, in order for them to develop new products, processes and market leadership. The principals of the company have wide academic and industrial experience in the materials, chemical, petrochemical, polymer and electronics sectors with a combined total of over 60 years.

This course, part of Chatsworth•Hall's on-going "Materials Technology Forum" aims at :

- ❖ providing a basic understanding of plastic materials and fabrication technology;
- ❖ broadening the perspective of non-technical personnel working within the plastics and related industries;
- ❖ providing a refresher course to improve the skills of all personnel working with plastics.

This workshop is therefore suitable for:

- ❖ Senior Managers and Non-technical Personnel in Purchasing, Finance and Accounting;
- ❖ Procurement, Manufacturing and Process Managers and Engineers new to plastics;
- ❖ Sales and Marketing personnel.

As well as Malaysia, courses have been run in Thailand, Singapore, Indonesia and Qatar, and previous participants have come from such multi-national companies as Philips, HP, Motorola, Seagate, Celestica, Solectron, Singapore Polymer Corporation, Chevron Phillips, Clariant, The Polyolefin Co., Kraiburg, Borouge, The Omni Group, Petronas Group, Kaneka, Robert Bosch, Engro Corporation, Qatar Petroleum, Qatar Chemicals, Western Digital; Sun Ace Kakoh; EAC Ingredients Inc and SPI Semicon from the Philippines, SMC Corp (India), Huntsman Tioxide.

Course Details & Fees:

Date & Time: Monday & Tuesday, July 19th & 20th, 2010
Registration: 8:00am - 9:00am
Course: 9:00am - 5:00pm each day

Venue: Meeting Room 404
Kuala Lumpur Convention Centre, KL City Centre,
50088 Kuala Lumpur, Malaysia
Tel: +603 2333 2888 :: Fax: +603 2333 2800

Enquiries: Dr Philip Adams, Singapore
Tel: +65 6743 6149 :: Fax: +65 6743 6158
e-mail: padams@chatsworth-group.com

Course Fee: S\$980.00 includes lunch, refreshments and concise presentation notes.

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Registration Form

(Malaysia PT Course 23 – July 19th & 20th, 2010)

Please photocopy if more space required.

Name (s): _____

Name (s): _____

Name (s): _____

Company: _____

Address: _____

Contact person: _____

Tel: _____ Fax: _____ e-mail: _____

For faster response and to reserve your seat, please fax in the form to (+65) 6743-6158 or e-mail to padams@chatsworth-group.com.

Payment: All payments must be received prior to the course, otherwise **CH** reserves the right to withdraw registrant. Please send cheques / bank drafts, **payable in Sing\$** to 'Chatsworth Hall Pte Ltd', together with the registration form, to the following address:

**Chatsworth Hall Pte Ltd.
Blk. 109, #03-271,
Lengkong Tiga,,
Singapore 410109**

Alternatively, payment by TT, **to include all appropriate bank charges**, should be sent direct to:

**Development Bank of Singapore,
Parkway Parade Branch
Account Name: Chatsworth Hall Pte Ltd
Account Number : 027-020052-4
Swift Code: DBSSSGSG**

Refund: 50% refund will be given if requests for cancellation in writing are received by June 28th. Thereafter, fees paid are not refundable although the person registered can send a substitute. However **CH** must be informed of such substitution by July 12th.

Cancellation: CH reserves the right of cancellation. Full refund will be given to the registrant if the course is cancelled.