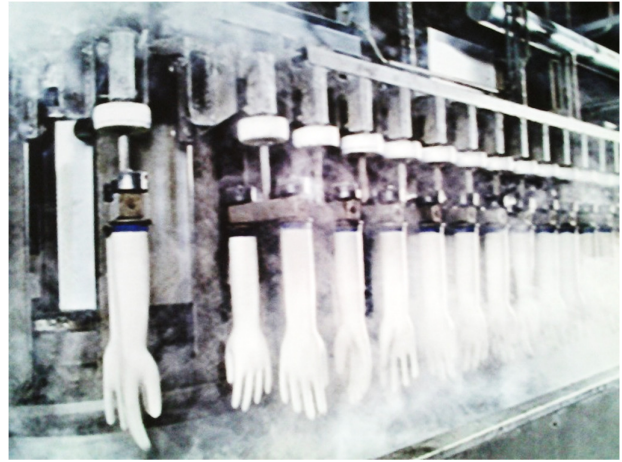




Organised by

The Plastics &  
Rubber  
Institute  
Malaysia



# SHORT COURSE IN LATEX TECHNOLOGY JULY 16-20, 2018

Venue: Lectures at Lee Foundation Hall, PRIM Building, Mah Sing Integrated Industrial Park, Shah Alam. Time: 9.00am to 5.30pm Monday to Friday.

Award: Certificate of Attendance on completion.

Cost: RM 4,800 Overseas: USD 1200 *Limited to 30 participants.* Members' rate: RM 4,300.

*GROUP DISCOUNT: RM 4,000 FOR GROUPS OF 3 OR MORE.*

This course is suitable for personnel working in a production or QA capacity or personnel involved in technical service in the latex product manufacturing sector. Those who do not have formal training in polymers will be given an understanding of the science and technology behind manufacturing processes of latex products, in particular that of latex gloves.

Now into its second year, this course seeks to give equal emphasis to both natural and synthetic latices, highlighting the common colloidal and polymeric nature of these materials. The origin of the two different types of material, one from biological source, the other from chemical synthesis, gave rise to observed differences in handling and processing technologies. The role of proteinaceous and other organic material associated with the biological origin of natural latex is explained and contrasted with the relative purity of synthetics.

Lecturers have years of experience in industry and are experts in their respective fields.

## **Topics covered include:**

**Basic understanding of colloidal and polymeric nature of natural & synthetic latices and their properties.**

**Stability and destabilization.**

**Vulcanisation and vulcanising systems.**

**Principles of Compounding and compound preparation.**

**Dipping process: manufacturing technology & machinery design.**

		Topics	Comments
Day 1	Morning	Introduction to latices as colloids - stability, and destabilisation basics: forces in play. Particle size and distribution and effects.	incl. surfactant types and choices.
	Afternoon	Polymeric nature of latices: chemical composition, polymer properties: physical properties, rheology, temp. effects.	Effects on processing esp film properties
Day 2	Morning	Natural Rubber latex from Hevea – non-rubbers and their effects, commercial grades and applications. Other natural latices	Intro. to latex allergy and guayule latex
	Afternoon	Synthetic latices used in latex products esp. in gloves. Comparison between NR and SR latices – general overview.	Covers all main commercial latices
Day 3	Morning	Vulcanisation systems: sulphur, peroxide, ionic and metal oxides. Pre-vulcanisation of latex compound.	
	Afternoon	Some important properties - Oxidation and aging - Permeability/barrier studies	
Day 4	Morning	Principles of compounding for latex applications. Compounding ingredients.	Or what makes a good compounder?
	Afternoon	Practical compounding:- Preparation of Dispersion and Emulsion- Some qualification parameters - Compound formulations	Examples of actual formulations
Day 5	Morning	The Dip process - theory and practice of dipping processes – natural latex gloves	
	Afternoon	Dipping of nitrile gloves – differences in processing behavior nitrile v. NR. Former considerations	

**THE PLASTICS AND RUBBER INSTITUTE MALAYSIA**  
**Short Course in Latex Technology 2018**  
**APPLICATION ENROLMENT FORM**

1. Name : \_\_\_\_\_ Salutation: Dr./Mr./Ms.
  2. Organisation: \_\_\_\_\_
  3. Position: \_\_\_\_\_
  4. Address: \_\_\_\_\_  
\_\_\_\_\_
- Tel/ H/P : \_\_\_\_\_ Email: \_\_\_\_\_

*For Company Sponsored Participants*

5. Approved by: \_\_\_\_\_
6. Designation: \_\_\_\_\_
7. Signature: \_\_\_\_\_
8. Company Stamp

Signature of applicant: \_\_\_\_\_ Date: \_\_\_\_\_

**Note:**

Please submit copies of identity card and relevant education certificates with this application. Photostat copies of this application form are acceptable.

If the applicant is currently not a member of The Plastics and Rubber Institute Malaysia, an application for membership of the Institute should accompany the application for enrolment. The application fee is RM. 15.00 for student membership.

An enrolment fee of RM 4,800.00 (Ringgit Malaysia Four Thousand Eight Hundred only) should accompany this application form. Members: RM 4,300.

**Fee is RM 4,000.00 for groups of 3 or more.** The fee is refundable if the application is not successful. All cheques / money orders should be made payable to **The Plastics and Rubber Institute Malaysia.**

HRDF claimable.

**Please return / fax the completed form to:**

The Plastics and Rubber Institute Malaysia  
20, Jalan Utarid U5 / 28  
Mah Sing Integrated Industrial Estate,  
40150 Shah Alam  
Selangor Darul Ehsan

Tel: 03-78471034                      Fax: 03-78471610  
E-mail: *primy@prim.org.my*