



The Institution of Engineers, Malaysia

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Talk on “PLASTICIZERS FOR PLASTICS – WHAT, WHERE, HOW AND WHY”

Organised by Chemical Engineering Technical Division

BEM Approved CPD/ PDP Hours: 2

Ref. No.: IEM12/HQ/088/T

Date: 1 June 2012 (Friday)

Time: 5.30 p.m. – 7.30 p.m.

(Refreshments will be served at 5.00 p.m.)

Venue: C & S Lecture Room, 2nd Floor, Wisma IEM, PJ

Speakers: Ir. Dr Tee Tiam Ting

Dr Lee Tin Sin

SYNOPSIS

Plasticizers are additives used in the plastic industry especially for polyvinyl chloride (PVC) manufacturing. It is the softening agent added to polymers to induce flexibility and improve processability. Initially, the plasticizer application is limited to the plastic industry, until the issue boom from Taiwan bubble tea industry, where plasticizer is used as clouding and thickening agent to induce smooth tastes of the beverages. This issue becomes so serious because plasticizers can cause serious health hazard when consumed orally. The most commonly found plasticizer is phthalate-based type. This type of plasticizer includes Diisononyl phthalate, Bis (2-ethylhexyl) phthalate, dioctyl phthalate, etc., and has been banned in Europe and western countries, mainly due to its high dose exposure has shown change of hormone levels and cause birth defects. In addition, adding large amount of plasticizer in plastics can increase its fire risk, because plasticizer itself is a high flammable substance. Nevertheless, plasticizers are not added in every plastic product. Some of the plasticizers are produced from the renewable resources such as soy bean oil which has found its usage in medical products as well.

BIODATA OF SPEAKER

Ir. Dr Tee Tiam Ting is an associate professor in Chemical Engineering Department of Universiti Tunku Abdul Rahman (UTAR). He has more than 30 years of teaching and research experiences in the university. He was the former vice president of IEM and currently the fellow member of IEM. He graduated with PhD from McGill University, Canada and was working on developing an oscillatory rheometer in 1970s to measure the viscoelastic property of polymer melts. This type of oscillatory rheometer is currently one of the most important equipment to study the flow characteristic of molten polymers. He is currently an active consultant for Commercial Polymers Sdn. Bhd. to develop crosslinked polyethylene for cable application. He also had served as technical adviser to Malaysian Plastics Manufacturing Association of Malaysia for many years. He plays an active role in designing the polymer engineering curriculum of UTAR for undergraduate program.

Dr Lee Tin Sin is an assistant professor in Chemical Engineering Department of Universiti Tunku Abdul Rahman. He graduated from the Universiti Teknologi Malaysia with First Class Honours in Bachelor of Engineering (Chemical-Polymer) and PhD in Polymer Engineering. He completed his PhD in two years time with 10 papers publications in international journals and book chapter about the characterization of biopolymer. His PhD research was focus on developing injection mouldable biodegradable cassava starch polymer compound which has won silver medal award in Malaysia Technology Expo 2010. Previously, he worked as a R&D Process Engineer in Superlon Worldwide Sdn. Bhd. which is one of the largest nitrile insulation manufacturers in Malaysia. Currently, he plays active roles in designing the polymer engineering curriculum of Universiti Tunku Abdul Rahman for undergraduate program.

Ir. Assoc. Prof. Dr Thomas Choong Shean Yaw
Chairman
Chemical Engineering Technical Division, IEM

ANNOUNCEMENTS

- Talk is **STRICTLY** for IEM members only (pre-registration/online registration is **NOT** required).
- Telephone and/or fax reservation will **NOT** be entertained.
- Limited seats available on a “first come first served” basis (maximum 110 participants).
- IEM members are required to produce your membership cards for confirmation of attendance (CPD purpose).
- Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD.

IEM members who fail to produce their membership cards will be charged a fee of RM20.00.

FUNDS FOR IEM BUILDING FUND (WISMA IEM)

- **Please be informed that IEM will be charging participants RM10.00 administrative fee for talks organized by IEM. Students are however exempted.**
 - The fee would be used for overhead costs, building maintenance expenses as well as to support the purchase of the new building.
 - All contributions will be deeply appreciated by IEM.
- Your understanding is greatly appreciated.

CPD HOURS CONFIRMATION

Name:

M'ship No.:

Signature:

Date: **1 June 2012**