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Plant Visit to PPG Performance Coatings Sdn Bhd

Reported by Nor Azrie Abu Samah, Materials Technology Education Edited by Ir. Max Ong Chong Hup and Assoc. Prof. Dr. Melissa Chan Chin Han, Editors of Materials Mind

Date: 27th June 2014, Friday **Time**: 10 am to 12 noon **Venue**: PPG Performance Coatings Sdn Bhd, Lot 9 & 11, Jalan Tukang 16/4, 40702 Shah Alam, Selangor, Malaysia

Members of the Polymer Committee and Task Force on Coatings Fingerprinting of Institute of Materials, Malaysia (IMM) visited the paint factory of PPG Performance Coatings Sdn Bhd located in Shah Alam, Selangor on 27th Jun 2014. One of the prime objectives of this plant visit is to expose the IMM members of the Polymer Committee and Task Force on Coatings Fingerprinting on the paint manufacturing process as well as the in-house quality control and quality assurance (QA & QC) processes for protective coatings.

Mr. Terrence Wee, Technical Operations Support Manager – AP Business & Tech Support – Asia Pacific, an active member of the IMM Task Force on Coatings Fingerprinting, welcomed all the guests during the plant visit. Briefing by Mr. Anurag Sahai (Business Director - Malaysia, Thailand, India & Export Countries) on the PPG business was followed afterwards. PPG was established in 1883 with its headquarters located in Pittsburgh, USA. In 2012, PPG was ranked as the 3rd most admired company by Fortune Magazine.

He mentioned that PPG has the world's broadest coatings portfolio which includes aerospace, architectural, automotive OEM, automotive refinish, industrial coatings, packaging coatings and protective and marine coatings and is now ranked the biggest paint company in the world after their recent acquisition of Akzo-Nobel's Decorative Coatings business in Canada. IMM members were briefed with an overview of the manufacturing plant, manufacturing processes, research & development for protective coatings; and lastly on QA & QC processes. The tour began with the visit to the storage compartments of the raw materials and the intermediate materials of the paints. Then, members were guided to visit the mixing tanks of the intermediate materials of the paints. Lastly, various QA and QC tests were shared with the members at their in-house laboratory.

At the end of the plant visit, IMM members and the staffs of PPG mutually agreed that Fourier-transform infrared (FTIR) structural analysis of epoxy paints on steel structure for coating fingerprinting certificate is practical to be carried out at the in-house laboratory of the company. As presented during the Final Forum on "Towards Fingerprinting of Polymeric Coatings" III on 20th Jun 2014, the complete Coating Fingerprint Certificate for polymeric coatings consist of two parts, *i.e.* (1) physical analyses (e.g. viscosity, density, color code, non-volatile matter (by mass) weight solid (Zn metal/total Zn) (which are the routine in-house analyses for QA & QC purposes) and (2) structural analysis by FTIR (which will be carried out immediately after each batch of the production in the paint factory).

IMM thank PPG for hosting this plant visit.



Figure 1 Front row from left to right: Mr. M Shahril Atiqi B M Sharip (PETRONAS), Ms. Elizah Samat (Shell), Dr. Tan Winie (UiTM), Assoc. Prof. Dr. Melissa Chan Chin Han (UiTM), Ir. Max Ong Chong Hup (Norimax Sdn Bhd) and Mr. Lim Chuan Gee (SIRIM). Second row from left to right: PPG's staff members, plus Mr. Anurag Sahai (second right) and Mr. Terrence Wee (far right)



Figure 2 Mr. Terrence Wee was welcoming all the guests during the plant visit





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