Institute of Materials, Malaysia

IMM Coating Fingerprint Certification Scheme

Certified Coating Fingerprint Quality Controller

Code: **FP**

HRDF claimable

The oil & gas and petrochemical industries with implement the requirement for **Coating Fingerprint Certificate** (equivalent to the Mill Certificate for Metals) for all the protective coating and paints supplied to the oil & gas and petrochemical operators. As such, paint manufactures will be required to engage a "IMM Certified Coating Fingerprint Quality Controller" to conduct FTIR structural tests and all associated physical tests to produce a Coating Fingerprint Certificate.

Objectives

This course will equip the graduate with the knowledge and skills to demand sufficient authority for his / her decisions to be recognized by both client and contractor, in the preparation of **Coating Fingerprint Certificate** for 3rd-party or in-house laboratories and on-site testings.

Course content

(1) Why do we need to FINGERPRINT coatings?
(2) IMM Costing Fingerprint Certification Scheme & the execution of **Coating Fingerprint Certificate** by coating manufacturer/supplier, fabricator/contractor/sub-contractor, external auditor, end-user and 3rd-party testing laboratory
(3) Preparation, review and validation of the **Coating Fingerprint Certificate** and the compulsory & optional appendices
(4) Basic components of protective coating (*e.g.* epoxy coating, inorganic zinc coating, organic-zinc coating, polyurethane coating, acrylic coating, polyester coating *etc*)
(5) Related physical analyses associated with protective coating (*e.g.* viscosity, density, color code, non-volatile matter, weight solids for organic- and inorganic-zinc coating *etc*)
(6) ISO and ASTM standards on Attenuated Total Reflection-Fourier Transform Infra-Red (ATR-FTIR) testings and the fingerprinting regions for different types of protective coating
(7) Users' technical specification on FTIR fingerprinting on coating
(8) Sampling standards of materials for in-house and on-site
(9) In-house and on-site FTIR testings for protective coating
(10) Basic introduction to FTIR hardware: desktop, mobile and handheld
(11) Basic application of a FTIR software: desktop, mobile and handheld
(12) Generation of reference FTIR spectrum before the qualification for new maintenance painting system and products for offshore application.
(13) Estimation of degree of similarity for in-house / on-site sample FTIR spectrum with reference FTIR spectrum
(14) Rejection and acceptance of samples based on threshold set using different Compare algorithms
(15) Dos and Don'ts in FTIR analysis: desktop, mobile and handheld
(16) Running samples using ATR accessories for desktop & mobile; and running samples using handheld device
(17) Interpretation of FTIR test results: in-house, 3rd-party laboratory and on-site
(18) Common quality control tools in a FTIR software
(19) Data analysis using a commercial FTIR software

Course duration

2 days

Reviewed by Polymer Committee (term: 2018-2020). 16th April 2018

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For course enquiries:-
Materials Technology Education Sdn Bhd
www.mte.com.my

Who should attend

This course has been designed specifically for persons carrying out assessment of quality control and quality assurance on coating systems, or those on the behalf of their employer, such as quality assurance managers and supervisors for coating contractors, representatives of coating suppliers, end-client project supervisors and QA/QC personnel, analyst of testing laboratories, coating inspectors, paint factory chemists and assistant chemists, paint QC technicians *etc*. It will also be of interest to estimators, steel fabricators and structural engineers involved in designing or maintaining steel structures.

Pre-requisite(s)

(1) **IMM Coating Fingerprint Foundation Course** (a 1-day classroom & laboratory course) OR

(2) **IMM Certified Coating Inspector Level 2** OR **equivalent** [*e.g.* Society for Protective Coatings (SSPC) Coating Inspector Level 2, NACE International Coating Inspector Level 2, the British Gas Approved Scheme (BGAS) Coating Inspector Level 2, the Norwegian Professional Council for Education and Certification of Inspectors for Surface Treatment (FROSIO) Coating Inspector Level 2, Institute of Corrosion (ICorr) Coating Inspector Level 2, Association for Certification and Qualification of Anticorrosive Paintwork (ACQPA) Coating Inspector Level 2 *etc*].

Certificate

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