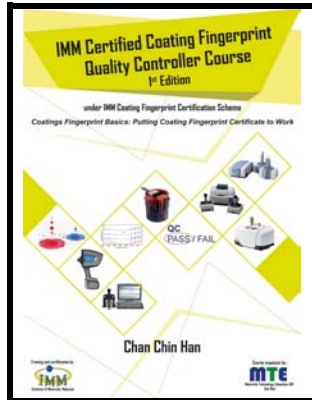




IMM Certified Coating Fingerprint Quality Controller



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 coatings 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.

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.

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 details

- Duration : 2 days
- Frequency of course : Twice a year
- **Examination will be held on the 2nd day of the course.**
- Minimum candidate per course : 15 pax
- Registration must be made at least 2 months prior to the course date.
- Full payment must be made at least 2 weeks before the course date.
- Participant must possess 5 years IMM membership at the point of certification.
- **Disclaimer:** All dates are subject to change. Please contact Materials Technology Education Sdn Bhd for the latest schedule and information.



Pre-requisite

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

Certification

Upon completion of this course, graduates will be issued an “IMM Certified Coating Fingerprint Quality Controller” certificate with validity of 5 years.



Passing criteria for IMM Certified Coating Fingerprint Quality Controller

- (1) Full attendance is compulsory for sitting of lectures & practical classes; and examination.
- (2) Certification of attendance shall be awarded for full attendance record of lectures & practical classes; and sitting of examination.
- (3) Passing grade of 100 multiple-choice is 70%. Passing the examination shall earn IMM Coating Fingerprint Quality Controller.
- (4) Candidate has to sit for another assessment examination for certificate renewal if one has been out of the profession for more than 18 months.

Re-sit of examination

A candidate who failed in examination can apply to re-sit for the certification. The candidate must again attend the complete course in order to be eligible to sit for the examination. The candidate must pay for the registration fee plus the appropriate examination fee. However, the candidate will have to wait until the next available training schedule. The IMM will notify the candidate of the next available date and location (if different from original location).

Language

This course will be conducted in English.



Course Content

- (1) Why do we need to FINGERPRINT coatings?
- (2) IMM Coating 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 coatings (*e.g.* epoxy coatings, inorganic zinc coatings, organic-zinc coatings, polyurethane coatings, acrylic coatings, polyester coatings *etc*)
- (5) Related physical analyses associated with protective coatings (*e.g.* viscosity, density, color code, non-volatile matter, weight solids for organic- and inorganic-zinc coatings *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 coatings
- (7) Users' technical specification on FTIR fingerprinting on coatings
- (8) Sampling standards of materials for in-house and on-site
- (9) In-house and on-site FTIR testings for protective coatings
- (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

Synopsis of the book

This book serves as one of the course materials (the second book of the series) for certified courses under the IMM Coating Fingerprint Certification Scheme: the first-of-its-kind courses on “**Coating Fingerprint Certificate**” in the world. This is the first source to consolidate the information on the practical guide on execution of **Coating Fingerprint Certificate** for protective coatings. It provides a one-stop reference for the QA/QC personnel of paint manufacturers, QA/QC coating inspectors, coating supervisors, clients' site QA/QC representatives, third-party QA/QC authorities' representatives, third-party laboratories' chemists/technicians and management personnel who have experience in QA/QC procedure for polymeric coatings. This book emphasizes on putting the **Coating Fingerprint Certificate** to work!