INSTITUTE OF MATERIALS, MALAYSIA

IMM Coating Certification Scheme

Certified Protective Coating Technician (Blaster and/or Painter) Level 1 & Level 2

Code: PCT *HRDF claimable*

This certification scheme will assess the candidate on capabilities and competency in abrasive blasting and protective coating painting skills, mainly in the oil & gas and heavy engineering industries. The candidate will be assessed both in the theory and practical aspects of Blasting and/or Painting which will determine their competency in accordance to the terms and conditions of the IMM Coating Certification Scheme. The candidate has a choice to sit for only the Blaster or Painter examinations or both.

Reference standards (reference used shall refer to the latest published document):

- ISO 8501-1: Preparation of Steel Substrates Before Application of Paints and Related Products - Visual Assessment of Surface Cleanliness - Part 1: Rust Grades and Preparation Grades of Uncoated Steel Substrates and of Steel Substrates After Overall Removal of Previous Coatings
- SSPC PA-1: Shop, Field, and Maintenance Coating of Metals

Who should apply

This certification scheme is suitable for new workers as well as those with experience in painting and/or blasting who want to be certified.

Objectives

To access the following knowledge and skills in:

- Specifying protective paint/coating system to a variety of substrates (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)
- The preparation of substrates prior to painting (Level 1 – Blaster; Level 2 – Multi-skill)
- The application of paint coatings (Level 1 – Painter; Level 2 – Multi-skill)
- The diagnosis and rectification of faults in paint coatings and communication in written form (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)

Examination topics

- Understanding corrosion types, factors affecting corrosion and effects of corrosion (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)
- Standards and paint materials data sheets (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)
- Composition and important types of paints (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)
- Surface preparation and related techniques (Level 1 – Blaster; Level 2 – Multi-skill)
- Application of paints (Level 1 – Painter; Level 2 – Multi-skill)
- Paint faults and coating defects (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)
- Quality assurance checks (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)
- Health, safety and environment – hazards, safety features and preventive measures (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)
- About coating fingerprinting (Level 1 – Blaster; Level 1 – Painter; Level 2 – Multi-skill)

The examination/assessment shall be preceded by a 2-hour pre-assessment briefing for Level 2 – Multi-skill
OR
The examination/assessment shall be preceded by a 1-hour pre-assessment briefing for Level 1 – Blaster

OR
The examination/assessment shall be preceded by a 1-hour pre-assessment briefing for Level 1 – Painter

Examination format

The examination comprises both theory and practical assessments, as follows:

- Theory

  IMM PCT Level 2 (Multi-skill)
  Paper 1 - Surface preparation, 23 multiple choice questions
  Paper 2 - Painting, 23 multiple choice questions

  IMM PCT Level 1 (Blaster or Painter)
  Paper 1 - Surface preparation, 23 multiple choice questions OR
  Paper 2 – Painting, 23 multiple choice questions

- Practical assessment

  IMM PCT Level 2 (Multi-skill)
  Part 1- Surface preparation
  - » Identify the main parts of a setup blasting equipment.
  - » Identify the safety features of blasting equipment and explain its function.
  - » To carry out blasting on a test panel to SA 2½ standard.

  Part 2 - Painting
  - » Identify the main parts of airless spray equipment.
  - » Identify and explain the safety features of an airless spray gun.
  - » Show how to check that the one or two-pack paint is the correct one with reference to the paint technical datasheets.
  - » Explain how the mixing of one or two-pack paint is to be carried out.
  - » To carry out spraying of paint on a test panel.

  IMM PCT Level 1 (Blaster or Painter)
  For Blaster only: Part 1- Surface preparation
  - » Identify the main parts of a setup blasting equipment.
  - » Identify the safety features of blasting equipment and explain its function.
  - » To carry out blasting on a test panel to SA 2½ standard.

  OR

  For Painter only: Part 2 – Painting
  - » Identify the main parts of airless spray equipment.
  - » Identify and explain the safety features of an airless spray gun.
  - » Show how to check that the one or two-pack paint is the correct one with reference to the paint technical datasheets.
  - » Explain how the mixing of one or two-pack paint is to be carried out.
  - » To carry out spraying of paint on a test panel.

Examination duration

Theory: 1 hour for both Parts 1 and 2 OR ½ hour for Part 1 or Part 2
Practical: 5 hours for both Parts 1 and 2 OR 2 ½ hours for Part 1 or Part 2

Examination fee

As specified on the IMM website.

Candidate's criteria

Candidate should have

- Minimum academic qualification - SPM or equivalent* OR
- 2 years of blasting and/or painting experience. Candidate with less than 2 years' experience must submit a testimonial from an employer or client to demonstrate their eligibility OR

- IMM Certified B1B2 Assistant Blaster and/or Painter with a minimum of 1 year experience in blasting and/or painting OR
- IMM Certified Blaster (L1) who has acquired coating skills and wishes to sit for the Painter assessment must submit a record (a testimonial from employer or client) prior to the examination showing proof of his/her experience over a twelve (12)-month period. The same procedure applies to IMM Certified Painter (L1) who wishes to sit for the Blaster assessment.

*Candidate who fulfills the minimum academic qualification but without blasting and/or painting experience is considered as a candidate without experience.

Pre-requisite training

A candidate without experience is required to attend IMM approved/recognized Protective Coating Technician (Blaster and/or Painter) training course with a minimum duration of 4 days (32 hours) which prepares and provides comprehensive guidance and practice aligned to the topics covered in the examination.

A candidate with experience is encouraged to attend an IMM approved/recognized Protective Coating Technician (Blaster and/or Painter) training course for examination preparation and scheme alignment.

Note: Evidence of training completion (where applicable) shall be submitted to the IMM prior to examination approval.

Criteria for certification

The candidate must be successful in each of the following:

- Minimum pass mark of 70% each of Part 1 and/or Part 2 in the theory examination.
- Minimum pass mark of 70% each of Part 1 and/or Part 2 in the practical assessment.

Certificate awarded

- **IMM Certified Protective Coating Technician Level 2 (Multi-skill)**
  [If the candidate is successful in all parts of the Blaster and Painter examination]
- **IMM Certified Protective Coating Technician Level 1 (Blaster)** OR
  IMM Certified Protective Coating Technician Level 1 (Painter)
  [If the candidate is successful in either Surface Preparation (Blaster) or Painter Assessment only]

Validity period of certificate

5 years

Re-sit of examination

A candidate who had failed in one or more of the examination parts can apply to re-sit for the failed component(s) of the examination within a year from the date of the first examination. The candidate shall have to pay the full examination fee for the re-sit and without the need to attend any pre-requisite training course.

Information on re-certification

Candidates may submit a recertification application up to six (6) months before or within six (6) months after the certificate expiry date. Applications submitted within this period will be processed as usual and may require attendance at a refresher course, if applicable.

Applications submitted more than six (6) months after the certificate expiry date require the candidate to:

- Attend the refresher course, if applicable; and
- Retake the certification examination, regardless of work experience.

Candidates may apply to renew their certification for an additional five (5) years within six (6) months prior to the expiry of the certification period (after either the initial 5-year certification or the subsequent 5-year renewal) by:

- Providing proof to IMM of employment in a related field; and
- Attending the refresher course, if applicable.

Candidates who have been out of the profession for more than eighteen (18) months at any point during a 5-year certification or recertification period must retake the certification examination.