

Study Guide

Advanced Module 502

Evaluation and Specifications

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Summary

This module aims to provide the student with guidelines on how to design a test method, which will enable a coating to be produced to meet the full requirements of the customer. In order to reach this stage we shall be discussing the problems relating to the evaluation of coating films, what is meant by the terms 'standards' and 'test methods' and what could be the important components of the specification.

There have already been a number of modules at foundation and Intermediate level dealing with test methods, so this module will refer to these, and then add others that may be of help.

The student will be required to produce a suitable test specification as an assignment at the end of the theory material.



Structure of the Module

The module training material consists of 4 sections, 1 set of Self-Assessment Questions (SAQ), 1 Computer Marked Assessment Questions (CMA), 1 Assignment (ASG) and an End Test (TMA).

The module is designed to take approximately 9½ hours of study. This excludes the time taken to write up the report.

Self-Assessment Questions (SAQ)

Are designed to enable you to check your own progress. Questions are asked as you progress through the module. You should write down your answers and then check them against the answers given in the Appendices. No marks are awarded for SAQs.

Computer Marked Assessment Questions (CMA)

Are a multi-choice question set that tests your understanding of the module. Please carry out this test before you submit any other work for marking by your tutor. These are completed online, you will need to log onto your study portal and then follow the CMA link/ instructions.

Assignment (ASG)

The ASG are an exercise in which the student research into and reports on certain objectives. You can discuss your proposed assignment with your tutor and mentor before commencing work. You will need to write a report on the assignment, which is then sent to your tutor for marking. Please see further instructions included in the Appendix on ASG Guidance Notes.

Tutor Marked Assessment (TMA)

Is a mandatory end test question paper taken under 'closed books', fully invigilated exam conditions. These are normally held on-site with an invigilator in attendance, which is normally your workplace mentor. The student or mentor will contact Lorraine Beard, and she will arrange for the TMA and

instructions to be sent, by email to the chosen invigilator, and then this is then given to the student on the day and time that has been chosen.

Marks for the module

CMA	20%
ASG	35%
TMA	45%
	100%

An overall mark of 50% or more is necessary for successful completion of the module, with students achieving at least 40% of the marks available in each element. In addition, an overall mark of 50% - 64% must be achieved for a PASS to be awarded, an overall mark of 65% - 84% must be achieved for a Merit and over 85% for a Distinction.

Module Pre-requisites

The main prerequisite for persons taking Modules at Advanced level, is an interest in surface coatings. Preferably, they will be employed in the coatings or a related industry. They may also be employed by a user of paints, lacquers, inks or powder coatings. In addition, they should preferably have a basic education in chemistry and physics. It would be useful if only for reference, that relevant foundation and intermediate modules had already been studied

These modules include references to scientific concepts relating to coatings technology. For example, those identified with an asterisk contain many references to chemical formulae and reactions. Therefore, it is a requirement that you have a scientific education, with Chemistry and Physics to at least UK Advanced Level or higher, of which you can provide evidence.

[Overview of qualification levels](#)

Persons taking these modules should be employed or have recently been employed in the coatings or a related industry.

Successful completion of six modules, including at least four at level 5, entitles a student to a full, Level 5 International Certificate in Coatings Technology (ICCT), awarded by The Coatings Training Institute. However, individual certificates are also presented if the student chooses to take less than six modules.

Module Objectives

Section 1. Problems of evaluation

After studying each objective you should be able to:

- 1.1 Discuss problems relating to the evaluation of coating films
- 1.2 Describe and discuss typical film defects

Section 2. Standards and test methods

- 2.1 Discuss 'what is a standard?'
- 2.2 Discuss the role of the British Standards Institute (BSI)
- 2.3 List suitable standard methods for the testing of coating films
- 2.4 Discuss flammability and slip resistance

Section 3. Components of a test specification

Section 4. Suitable test specifications

- 4.1 Prepare a test specification for a specific coating
- 4.2 Design a test to assess a particular property (ASG)

