

Industrial Coatings Applicator

Level 2 Assessment Plan



INTRODUCTION

This document sets out the requirements for end-point assessment (EPA) for the Industrial Coatings Applicator apprenticeship standard. It is written for end-point assessment organisations who need to know how EPA for this apprenticeship must operate. It will also be of interest to Industrial Coatings Applicator apprentices, their employers and training providers.

This EPA is designed to enable Apprentices to demonstrate occupational competence as an Industrial Coatings Applicator, and to ensure that they meet the skills, knowledge and behaviour outcomes as defined in the apprenticeship standard. Typically, apprentices would have completed 18 months on-programme working towards the apprenticeship standard, with a minimum of 20% off-the-job training.

The EPA should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the standard, that the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPA organisation. As a gateway requirement, apprentices without English and mathematics at level 2 must achieve level 1 English and mathematics and take the tests for level 2 prior to taking their EPA.

EPA must be conducted by an organisation approved to offer services against this standard, as selected by the employer, from the Education & Skills Funding Agency's Register of End Point Assessment Organisations.

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The EPA consists of two distinct assessment methods:

- Practical Test
- Professional Discussion

Performance in the EPA will determine the apprenticeship grade of fail, pass or distinction.

ASSESSMENT GATEWAY

The EPA should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the standard, the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPA organisation. Employers may wish to take advice from their apprentice's training provider(s).

Gateway requirements:

- Apprentices without Level 1 English and mathematics must have achieved this level and have taken the English and mathematics tests at level 2 prior to taking the EPA. For those with an education, health and care plan or a legacy statement the apprenticeships English and maths minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.
- Portfolio of evidence including as a minimum:
 - Evidence of at least 10 examples of completed corrosion protection works
 - Quarterly employer-written appraisals throughout the duration of the apprenticeship

The portfolio will not in itself be assessed; it is designed to support the professional discussion. It should not include any self-reflection evidence. It should be submitted to the EPAO one week prior to the professional discussion taking place.

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ASSESSMENT METHODS

The end-point assessment must be completed over a maximum period of two consecutive days and within three months after the apprentice has met the gateway requirements. The methods can be completed in any order.

ASSESSMENT 1: PRACTICAL TEST

Duration: 3 hours and 30 minutes (+/- 10% at the discretion of the independent assessor)

The practical test can take place at the employer's premises or at a location designated by the EPA organisation. The test will require the apprentice to apply protective coatings to steelwork to industry-recognised standards, as designed by the EPA organisation. The specific task should be based on the work the apprentice's employer typically produces and should test the apprentice's ability to:

- a) Prepare and maintain working areas for undertaking work safely and effectively including the safe use and secure storage of equipment and material.
- b) Use of established safe manual and mechanical handling techniques to move equipment, material and waste.
- c) Interpret and work to method statements, specifications, and inspection and test plans.

- d) Undertake the specified method of surface preparation of the steelwork (e.g. by hand or power tool cleaning, blast cleaning) and the specified method of protective coating application (e.g. by brush, roller, spray), to the required standards.
- e) Achieve the specified standard of work including the use of appropriate quality control measuring and test equipment, and instrumentation.
- f) Demonstrate responsibility for the quality and accuracy of their work including identifying and rectifying surface preparation and coating defects.
- g) Identify, use and maintain personal protective equipment.
- h) Maintain health, safety and environmental protection measures.

EPAOs must develop practical task specifications and an accompanying question bank of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure they, and the specifications they contain, are fit for purposes.

The apprentice will be provided with a task specification at the beginning of the practical test.

During the practical test, the assessor should ask the apprentice a series of six questions drawn from the pre-set question bank to assess underlying knowledge of industrial coatings applicator principles.

The apprentice may complete the task early but will fail the practical test if it is not completed within the time allowed (+ 10% at the discretion of the assessor). Upon completion of the task the assessor will mark the completed coatings work, checking that it conforms to the drawings, the correct materials have been used and applied as instructed and all are within the given tolerances using a critical marking sheet specific to the allocated task. Assessors may assess up to two apprentices at any one time.

Pass and grading criteria for the practical test is as follows. If the stated pass standard is not met, the practical test will be marked as a fail.

Practical Test Pass Criteria	Practical Test Distinction Criteria
<p>Conforms to health, safety and environmental protection requirements during the planning and execution of allocated tasks. (K1, S1, S8, S9, B5)</p> <p>Selects appropriate tools for the given tasks including powered and non-powered, demonstrating correct and safe usage and care, and correct manual handling techniques. (S2)</p> <p>Selects the appropriate techniques and executes the given surface preparation and protective coating application task in accordance with stated tolerances and to stated specifications. (S4, S7)</p>	<p><i>Achieves pass criteria and at least 4 of the following:</i></p> <p>Can identify and make suggestions for improvement to health and safety standards.</p> <p>Can evaluate and discuss a range of different techniques and justify the selections made.</p> <p>Achieves a quality of work that where possible exceeds international standards for dimensional inspection.</p> <p>Is able to identify possible issues in executing the task as per the specification and can take steps to prevent any issues before they occur.</p>

<p>Achieves a quality of work to meet the stated specifications, including the use of appropriate quality control measuring and test equipment. (S5)</p> <p>Correctly interprets the specification including drawings. (S3)</p> <p>Identifies surface preparation and coatings defects, and rectifies defective work (S6)</p> <p>Demonstrates effective communication skills and accurate reporting. (B2)</p>	<p>Is able to show initiative and helps to support improvements to workplace efficiency.</p>
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ASSESSMENT 2: PROFESSIONAL DISCUSSION

Duration: 60 minutes (+/- 10% at the discretion of the independent assessor)

The professional discussion must be conducted on a 1:1 basis in a controlled environment free from distraction or influence. The discussion can take place remotely if suitable for both parties. The discussion will be audio-recorded. A portfolio of evidence will be used by the apprentice to provide evidence to support the discussion and will not in itself be assessed or contribute to the overall grade. The portfolio should be provided at least one week in advance to the EPAO.

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During the professional discussion, the apprentice will be asked a series of 6 competency-based questions, with follow-up questions to probe further if required. EPAOs must develop question banks of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure they are fit for purpose.

Questions must be pre-selected to ensure coverage of all the KSBs assigned to this method as per annex A.

Pass and grading criteria for the professional discussion is as follows. If the stated pass standard is not met, the professional discussion will be marked as a fail.

Professional Discussion Pass Criteria	Professional Discussion Distinction Criteria
<p>Recognises the importance of, and can explain the reasons why health, safety, environmental related rules, legislation and regulations are important in the application of coating industry. In addition demonstrates specific knowledge regarding preventative measures needed</p>	<p><i>Achieves all pass criteria and at least 4 of the following:</i></p> <p>Able to evidence instances where they have been able to suggest / implement improvements to work place safety and explain why these improvements have been successful.</p>

<p>in the corrosion protection process. (K1, K2, K3)</p> <p>Demonstrates an awareness of the various paint substances and sizes of blasting materials; recognises the common component names and descriptions. (K4)</p> <p>Identifies the correct powered and non-powered equipments and tools for a given task and can describe their safe usage. (K5)</p> <p>Provides correct information when questioned on a range of common errors and poor techniques related to coatings tasks and coatings defects. Demonstrates an understanding of common faults and how to rectify them. (K6)</p> <p>Describes the correct reporting procedures and understands the importance of record keeping. (K7)</p> <p>Explains the importance of productive team working and maintaining industry best practice. Able to explain the importance of conforming to the work place behaviours articulated in the standard. Fully aware of the implications of deviating from these behaviours. (B1, B3)</p> <p>Demonstrates a commitment to personal development, meeting production targets and effective planning. (B4)</p>	<p>Can describe a range of common fault diagnosis techniques and recognises where these are best applied. Can justify why the specific techniques were selected to identify and rectify faults.</p> <p>Provides evidence of instances where they may have been exposed to unsafe/undesirable behaviours and how they dealt with these occurrences. Explains their actions and describes what other options may have been available and why these were not deemed suitable or pursued.</p> <p>Recognises the impact of non-conformance on workplace behaviours and organisational culture.</p> <p>Can explain how they can personally contribute to the productivity and dynamics of the team.</p> <p>Can explain the roles and responsibilities of allied trades and explains where the work of these trades will impact upon their tasks.</p>
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OVERALL GRADING

Independent assessors must individually grade each assessment method – fail, pass or distinction, according to the requirements set out in this plan. Restrictions on grading apply where apprentices re-sit/re-take an assessment method – see re-sit/re-take section below.

An independent assessor must combine the grades of all assessment methods to determine the EPA grade. Apprentices must at least pass all the assessment methods in order to pass the overall apprenticeship.

Where more than one independent assessor is involved, the independent assessor responsible for the assessment method completed last will be responsible for combining the grades.

Practical Test	Fail	Fail	Pass	Pass	Pass	Distinction	Distinction
Professional Interview	Fail	Pass	Fail	Pass	Distinction	Pass	Distinction
Overall Grade	Fail	Fail	Fail	Pass	Pass	Distinction	Distinction

The apprentice cannot achieve an overall distinction grade unless a distinction is achieved in the practical test, to reflect the greater weight attached to the practical application of skills and health & safety in the workplace.

RE-SIT AND RE-TAKE INFORMATION

Apprentices who fail one or both assessment methods will be offered the opportunity to take a re-sit/re-take. Re-sits/re-takes must not be offered to apprentices wishing to move from pass to distinction. A re-sit does not require further learning, whereas a re-take does.

The apprentice's employer will need to agree that a re-sit/re-take is an appropriate course of action. Apprentices should have a supportive action plan to prepare for the re-sit/re-take.

The apprentice will only have to re-take the specific assessment method that was failed. If a re-sit/ re-take is not successfully completed within 6 months of the original EPA, the entire EPA will have to be taken again. Re-sits and re-takes are restricted to a pass mark unless in exceptional circumstances, which can be taken into account at the discretion of the EPA organisation.

END-POINT ASSESSMENT ORGANISATIONS

Employers must choose an independent EPA organisation approved to deliver the EPA for this apprenticeship from the Education & Skills Funding Agency's Register of End Point Assessment Organisations (RoEPAO).

Requirements for Independent Assessors

EPA organisations must appoint independent assessors to oversee the practical assessment and conduct the professional discussion. They must meet the following criteria:

- Be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest
- Has a relevant assessor qualification and work experience in an industrial coatings environment at or above the level of this apprenticeship standard.

INTERNAL QUALITY ASSURANCE

Internal quality assurance refers to the requirements that EPA organisations must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPA organisations for this EPA must undertake the following:

- Appoint independent assessors that meet the requirements as detailed in this plan – see above
- Provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- Have quality assurance systems and procedures that support fair, reliable and consistent assessment across organisation and over time
- Operate moderation of assessment activity and decisions, through examination of documentation and observation of activity, with a minimum of 20% of each independent assessors' assessments moderated
- operate regular standardisation events that enable assessors to attend a minimum of two events per year
- Operate an appeals process

EXTERNAL QUALITY ASSURANCE

External quality assurance will be provided by the Institute for Apprenticeships.

STARTS

It is anticipated that there will be 50 starts per year on this apprenticeship.

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AFFORDABILITY

Affordability is built into the design of the plan by use of employer premises for the practical assessment to minimise to cost of conducting this part of the EPA.

ANNEX A: MAPPING EXERCISE

KNOWLEDGE	PT	PD
Health and safety relating to industrial coatings application including relevant health and safety regulations, the need for and methods of safe working, the requirement for access systems and working platforms for safe working at height, hazard identification and mitigation, and the health, safety and environmental implications of the various materials and substances used.(K1)	X	X
Legal requirements for protecting the environment. (K2)		X
The need to address the areas that require protection from the high pressured projectiles and other contaminants released in the corrosion protection process. (K3)		X
The types of industrial coating materials used, and the different techniques and equipment used for surface preparation and coating application. (K4)		X
The safe use of the non powered and powered equipment and tools used in industrial coatings work. (K5)		X
The causes of typical surface preparation and coatings defects, how they can be avoided and how they can be rectified. (K6)		X
Quality documents, reporting systems and the need to keep basic records (e.g. work diary) and to do basic calculations (e.g. for material coverage and usage). (K7)		X
SKILLS		
Prepare and maintain working areas for undertaking work safely and effectively including the safe use and secure storage of equipment and material. (S1)	X	
Use established safe manual and mechanical handling techniques to move equipment, material and waste. (S2)	X	
Interpret and work to method statements, specifications, and inspection and test plans. (S3)	X	
Undertake the specified method of surface preparation of the steelwork (e.g. by hand or power tool cleaning, blast cleaning) and the specified method of protective coating application (e.g. by brush, roller, spray), to the required standards. (S4)	X	

Achieve the specified standard of work including the use of appropriate quality control measuring and test equipment, and instrumentation. (S5)	X	
Identify surface preparation and coatings defects, and rectify defective work. (S6)	X	
Care for and maintain tools and equipment. (S7)	X	
Identify and correctly use appropriate personal protective and respirator equipment ensuring that it is in good condition and working correctly. (S8)	X	
Maintain health, safety and environmental protection measures. (S9)	X	
BEHAVIOURS		
Have a questioning attitude to work including to understanding the processes used, the associated industrial trades and the need to embrace change to maintain industry best practice. (B1)		X
Be able to communicate effectively and work effectively with others. (B2)	X	
Be able to think logically using clear and valid reasoning when making decisions. (B3)		X
Be motivated and accountable for following specified procedures and controls, for planning and carrying out their work activities and consistently meeting production and quality expectations, and for their personal development. (B4)		X
Be accountable for their health and safety, and the health and safety of others. (B5)	X	