



National Unit Specification: general information

UNIT Roofing: External Cement Work Bands and Artificial Stone Work
(SCQF level 6)

CODE F7A2 12

SUMMARY

This Unit is suitable for candidates working towards a Modern Apprenticeship in Roofing Occupations and will develop the candidates craft skills in external cement work to form bands and artificial stone work. This Unit is designed to provide candidates with competence in the use of tools and equipment for external rendering materials. It is also designed to enable candidates to develop their knowledge and understanding in external cement work terminology, techniques and sequencing of operations.

OUTCOMES

- 1 Demonstrate knowledge and understanding of terminology, components, techniques and sequence of operations for the application of external cement work to form bands and artificial stone work.
- 2 Prepare backgrounds for the application of external cement bands and artificial stone work.
- 3 Produce plain float cement render to bands to ingoes and soffits at window openings.
- 4 Set out and form cement render to represent ashlar stone work, square sneck stone work to picked and bullnose finishes.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates undertaking the Professional Development Award in Roof Slating, Tiling and Cement Work at SCQF level 6 must meet the requirements of the Modern Apprentices which include being employed in the relevant craft industry.

Administrative Information

Superclass: TG

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National Unit Specification: general information (cont)

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CREDIT VALUE

1 credit at SCQF level 6 (6 SCQF credit points at SCQF level 6*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

While there is no automatic certification of Core Skills or Core Skill components in this Unit, opportunities for developing aspects of the following Core Skills are highlighted in Support Notes of this Unit:

- ◆ *Problem Solving* at SCQF level 4
- ◆ *Numeracy* at SCQF level 4
- ◆ *Information and Communication Technology* at SCQF level 3
- ◆ *Communication* at SCQF level 4

National Unit Specification: statement of standards

UNIT Roofing: External Cement Work Bands and Artificial Stone Work (SCQF level 6)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Demonstrate knowledge and understanding of terminology, components, techniques and sequence of operations for the application of external cement work to form bands and artificial stone work.

Performance Criteria

- (a) Define the terminology related to external cement work bands and artificial stone work.
- (b) Describe the sequence of operations required for external cement work to bands including returns to ingoes and soffits and to artificial stone work.
- (c) State basic health and safety requirements related to external cement work.

OUTCOME 2

Prepare backgrounds for the application of external cement bands and artificial stone work.

Performance Criteria

- (a) Prepare backgrounds prior to the application of external cement work.
- (b) Apply a cement render first coat and from a scratch finish / mechanical key.
- (c) Comply with current health and safety requirements throughout activity.

OUTCOME 3

Produce plain float cement render to bands to ingoes and soffits at window openings.

Performance Criteria

- (a) Apply cement render coat at window opening to form bands, ingoes and soffits.
- (b) Form a smooth float finish to bands, ingoes and soffits.
- (c) Comply with current health and safety requirements throughout activity.

OUTCOME 4

Set out and form cement render to represent ashlar stone work, square sneck stone work to picked and bullnose finishes.

Performance Criteria

- (a) Apply cement render and forming a picked artificial ashlar and square sneck stone work finish.
- (b) Form a bullnose finish to the artificial ashlar and square sneck stone work.
- (c) Comply with current health and safety requirements throughout activity.

National Unit Specification: statement of standards

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence is required to demonstrate that the candidates have achieved this Unit to the standard specified in all the Outcomes and Performance Criteria. All working practices must be in line with relevant and current Health and Safety legislation and regulations.

Written and/or oral evidence is required for Outcome 1 which demonstrates that the candidate can define and describe the terminology, components, techniques and sequence of operations associated with external cement work to form bands and artificial stone work. The evidence for this Outcome will take the form of a question paper and be obtained under closed-book supervised conditions.

Performance and product evidence for Outcomes 2, 3 and 4, supplemented with an assessor observation checklist, should be used to confirm the candidate has individually met the standards specified in the Performance Criteria and summary of standards.

Candidates will be observed to show that they can achieve the following through the delivery of the Unit:

- ◆ Measure area accurately
- ◆ Store and stack external cement materials, accessories, tools and equipment
- ◆ Prepare backgrounds for external cement textured finishes
- ◆ Set out and fix bellcast bead and stop beads
- ◆ Control suction of backgrounds prior to rendering
- ◆ Gauge and mix mortar to required specification
- ◆ Set-out and apply mortar to form bands to required specification
- ◆ Set-out and apply mortar to form returns at ingoes and soffits to required specification
- ◆ Set-out and apply mortar to form artificial ashlar stone work to required specification
- ◆ Set-out and apply mortar to form artificial square sneck stone work to required specification
- ◆ Protect and clean down work areas
- ◆ Minimise wastage of materials to improve sustainability and efficiency
- ◆ Behave in a safe manner at all times

Competence will be based on candidates completing practical activities in accordance with the stated tolerances.

National Unit Specification: statement of standards (cont)

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Summary of Standards for External Cement Work Bands and Artificial Stone Work (working towards industrial tolerances)

Background preparation

- | | |
|---------------------------------------|---|
| ◆ Prepares background — blocks/bricks | Thoroughly cleans wall area |
| ◆ Control suction — wetting | Wall area evenly damped down throughout |
| ◆ Apply first coat | Free from heavy trowel marks |
| ◆ First coat applied evenly | 8 mm —16 mm throughout |
| ◆ Form mechanical key (scratch) | Horizontal scratched 6–8 mm deep |

External Cement Work Bands

- | | |
|----------------------------------|--|
| ◆ Form ingoes and soffit (float) | Even texture and width throughout |
| ◆ Form bands (plumb and level) | Even width ± 5 mm |
| ◆ Thickness of bands | Finished to allow texture to finish flush with band ± 5 mm |
| ◆ Form arrises | Sharp throughout |

Health and safety

- | | |
|------------------------|---|
| ◆ Working area | Clean at all times |
| ◆ Health and safety | Complies at all times |
| ◆ Risk assessment | Safety boots worn at all times |
| ◆ High visibility vest | Worn at all times |
| ◆ Hard hat | Worn at all times |
| ◆ Method statement | Working area clean at all times |
| ◆ Materials | Stacked correctly at all times |
| ◆ Tools | Cleaned and stored safely at end of working day |

National Unit Specification: support notes

UNIT Roofing: External Cement Work Bands and Artificial Stone Work (SCQF level 6)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit has been developed as a mandatory Unit in the Professional Development Award (PDA) in Roof Slating, Tiling and Cement Work at SCQF level 6.

This Unit would be offered to candidates from the construction and related services industries. The skills and knowledge and understanding are transferable within different working environments but the Unit is primarily aimed at candidates whose normal place of work would be a site, workshop, or similar environment. It should be delivered as part of a structured programme of training and orientated to the context of the candidates work and area of responsibility.

The successful completion of this Unit will help provide candidates with the required underpinning knowledge and skills relating to the terminology, preparation and application of external cement bands including returns at ingoes and soffits and artificial stone work.

The context of this Unit allows for a holistic integrated approach into other Units within the PDA in Roof Slating, Tiling and Cement Work. Therefore there are opportunities to integrate this Unit with aspects of *Roofing: External Cement Work Textured Finishes* (SCQF level 6).

Health and Safety and Sustainability are integral and key to the Construction Industry and so throughout the Unit emphasis will be placed where appropriate on the application of Health and Safety and Sustainability. Safety working practices should be looked at in accordance with current safety codes of practice and regulations. Sustainability should include reference to legislation affecting the conservation of the environment and its relevance to this trade and to the construction industry in general. Attention should also be drawn to the dangers of not implementing this legislation.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The learning environment for this Unit will be a combination of classroom and workshop based learning. The knowledge element of this Unit would be taught in a classroom environment and put into practice in the workshop in conjunction with practical Outcomes.

The candidate should be given the opportunity to further develop their skills through visual aids, electronic presentations, DVDs, e-learning, reference books, classroom exercises and group discussions.

Candidates should be encouraged to consider basic risk assessment **prior** to any practical activities taking place.

National Unit Specification: support notes (cont)

UNIT Roofing: External Cement Work Bands and Artificial Stone Work (SCQF level 6)

Outcome 1

This Outcome should introduce the candidate into the terminology, components techniques and sequence of operations of bands and artificial stone work.

Terminology and components could include those indicated below:

Terminology: Lintel, sill, arris, ingoe, soffit, blocking out, ashlar stone work, square sneck stone work, picked and bullnose finishes.

Components: Bellcast bead, stop bead.

It would be beneficial for candidates to sketch various elements related to external cement bands including returns at ingoes and soffits and artificial stone work. This will help reinforce candidates' underpinning knowledge for this Unit.

Outcomes 2, 3 and 4

Candidates should be encouraged in self and peer evaluation of work and achievement of standards.

The candidate should be provided with a working drawing and specification outlining the content and Performance Criteria for the practical activities attempted.

Candidates should be made fully aware of current regulations and legislation in relation the external cement work activities contained within this Unit.

It would be beneficial for lecturers to reinforce the appropriate disposal and re-use of external cement work materials for sustainability considerations.

Candidates should be encouraged to calculate areas and quantities of external cement work materials. This could take place in a classroom or a workshop environment. Candidates could take the opportunity to use spreadsheets to compile and record information related to material estimating.

Lecturers should provide candidates with constructive feedback in relation to performance and the standard achieved. Areas for improvement should be clearly identified.

Opportunities should be taken throughout delivery of this Unit to meet the requirements of the generic Units of the Training and Assessment Programme including:

- ◆ *Conform to Efficient Working Practices*
- ◆ *Conform to General Workplace Safety*
- ◆ *Move and Handle Resources*
- ◆ *Confirm Work Activities and Resources for the Work*
- ◆ *Develop and Maintain Good Working Relationships*
- ◆ *Confirm the Occupational Method of Work*

National Unit Specification: support notes (cont)

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OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

There are opportunities to develop aspects of the Core Skill of *Problem Solving* at SCQF level 4. Candidates will need to take account of a range of factors in order to work efficiently and safely, such as the choice of tools, appropriate materials, safety issues, safety equipment and sustainability. Individual discussions with assessors and the use of role play will enhance the evaluation of efficient working practices.

Numeracy skills at SCQF level 4 could be developed through external cement work calculations for area and material estimating.

Opportunities also arise for candidates to develop the Core Skill of *Information and Communication Technology* at SCQF level 3 through researching external cement work terminology and techniques on the internet, spreadsheets for materials information, e-learning and e-assessment.

Candidates will have the opportunity to develop *Communication* skills at SCQF level 4 throughout practical tasks, as they should be expected to communicate with others using the correct terminology, tone and style suited to the workplace.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Sections 5 and 6 of the Roof Slating, Tiling and Cement Work Training and Assessment Programme (TAP) provide detailed assessment material for this Unit. It is advised to use the TAP which has been developed centrally by SQA. Any other instruments of assessment used must be comparable to the TAP and have been through prior verification. It is expected that candidates will be given as much practice as possible, prior to being set assessment tasks.

For Outcome 1 a suitable method of assessing the candidate's knowledge and understanding of external cement work terminology, components and sequence of operations for external cement bands including returns at ingoes and soffits and artificial stone work would be through a question paper incorporating multiple choice questions.

For Outcomes 2, 3 and 4 the candidate's ability to set out and form external cement bands including returns at ingoes and soffits and artificial stone work will be assessed through practical activities. An assessor observation checklist can be used to ensure and record that the candidates have met the given standards and tolerances during the practical activity.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

National Unit Specification: support notes (cont)

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DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website

www.sqa.org.uk/assessmentarrangements