



Australian Government

Department of Education, Employment and Workplace Relations

CPC CST2003A Finish stone

Release: 1

CPCST2003A Finish stone

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit specifies the outcomes required to undertake the cutting and polishing processes used to finish both hard and soft stone.

Application of the Unit

Application of the unit This unit of competency supports the achievement of skills and knowledge to finish stone, which may include working with others and as a member of a team.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units

CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry
--------------	--

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare.	<p>1.1. Work instructions and operational details are obtained using relevant <i>information</i>, confirmed and applied for <i>planning and preparation</i> purposes.</p> <p>1.2. <i>Safety (OHS)</i> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. <i>Tools and equipment</i> selected to carry out tasks are consistent with job requirements, checked for serviceability and any faults are rectified or reported prior to commencement.</p> <p>1.5. Material quantity requirements are calculated in accordance with plans, specifications and <i>quality requirements</i>.</p> <p>1.6. <i>Materials</i> appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.7. Stone hardness is identified using Moh's scale.</p> <p>1.8. <i>Environmental requirements</i> are identified for the project in accordance with environmental plans and <i>statutory and regulatory authority</i> requirements, and are applied.</p>
2. Use abrasives.	<p>2.1. Coolant is used as required by selected abrasives, stones and job requirements.</p> <p>2.2. Range of grades of abrasives is used in accordance with job requirements and specifications.</p> <p>2.3. Polishing compounds are used in accordance with job requirements and specifications.</p> <p>2.4. Various polishing heads are used in correct sequence to provide finish to specification.</p>
3. Use stone cutting equipment.	<p>3.1. Stone is set into place on cutting table to obtain maximum efficiency in cutting.</p> <p>3.2. Stone is wedged or fixed into place by nailed timber strips to ensure stability and is aligned correctly to cutting blade.</p> <p>3.3. Adjustments are made to machinery as required by maximum depth of cut and size of stone.</p> <p>3.4. Primary cutting machines are used appropriate to their cutting capacity.</p> <p>3.5. Secondary cutting machines are used appropriate to</p>

ELEMENT	PERFORMANCE CRITERIA
4. Polish stone and form edges.	<p>their cutting capacity.</p> <p>3.6. Stone is marked out and cut according to job drawings, specifications and schedules.</p> <p>4.1. Adhesives are applied as fillers to stone as required by job.</p> <p>4.2. Grinding and polishing heads are set up and operated as required by job.</p> <p>4.3. Adjustments are made to machinery in accordance with job requirements.</p> <p>4.4. Polishing machinery is used in a manner appropriate to its capacity.</p> <p>4.5. Various hand-operated polishing machines are used as required by job to achieve specified finish.</p>
5. Use adhesives and fillers.	<p>5.1. Various filling compounds are selected and used according to job requirements.</p> <p>5.2. Various types of adhesives are selected and used according to job requirements.</p> <p>5.3. Tinting procedures for fillers and adhesives are selected and used, where required.</p> <p>5.4. Various reinforcing materials and techniques are selected and used, where required.</p>
6. Clean up.	<p>6.1. Surfaces are cleaned as required by job in preparation for transport or installation.</p> <p>6.2. Surface finishes, such as wax, are applied as required by job.</p> <p>6.3. Work area is cleaned up and waste materials disposed of in an appropriate manner and in accordance with Environment Protection Authority (EPA) requirements.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

- ability to recognise procedures, respond to change and contribute to workplace

REQUIRED SKILLS AND KNOWLEDGE

responsibilities, such as current work site environmental or sustainability frameworks or management systems

- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - read and interpret:
 - drawings and specifications
 - other relevant workplace documentation
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
- numeracy skills to workplace requirements including measurements
- problem solving skills to recognise and take action to rectify minor faults and problems
- read and interpret drawings and documentation
- teamwork skills to be able to work with others to action tasks and relate to people from a range of cultural, social, ethnic backgrounds and with varying physical and mental abilities.

Required knowledge

Required knowledge for this unit is:

- job safety analysis (JSA) and safe work method statements
- methods of finishing stone
- Moh's scale of stone hardness
- OHS regulations relating to guarding and using static and hand-held power tools and equipment on stone
- range and grades of polishing compounds
- regulations related to safe waste disposal and dust suppression
- role of coolant in stone polishing process
- types and characteristics of adhesives and fillers relevant to finishing stone surfaces
- types of stone and their characteristics
- workplace and equipment safety requirements.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to finish two types of stone, one hard and one soft, using at least two types of equipment listed in the range statement, providing evidence of the ability to:

- comply with OHS regulations applicable to machinery, equipment and workplace operations
- apply organisational quality procedures and processes within the context of finishing stone
- stabilise stone or equipment, prior to cutting or polishing
- select cutting and polishing processes appropriate to stone shape, size and specified finish
- use polishing heads in a logical sequence to achieve specified finish
- polish, using both hand-held and static polishing machinery
- identify typical faults and problems that occur and action required to rectify them
- communicate with others to ensure safe and effective workplace operations
- complete finishing process to stone to specifications.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge

EVIDENCE GUIDE

will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- workplace operations
- access to equipment and materials for cutting and polishing stone
- stone relative to cutting and polishing proposed activity
- drawings, specifications and documentation relevant to activity.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm a reasonable inference that competency is not only verified under the particular assessment circumstance, but is able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and

EVIDENCE GUIDE

separated by further learning and practice with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should, as far as is practical, take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- material safety data sheets (MSDS)
- memos
- regulatory and legislative requirements pertaining to handling stone
- relevant Australian standards
- safe work procedures relating to handling

RANGE STATEMENT

stone

Planning and preparation include:

- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.
- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.

Safety (OHS) is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- hazard control
- hazardous materials and substances
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - concealed services (water, power and gas)
 - lighting
 - restricted access barriers
 - traffic control
 - work site visitors and the public
 - working at heights
 - working in confined spaces
 - working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- working platforms and scaffolding
- workplace environmental requirements and safety.

Tools and equipment include:

- angle grinders
- buffs
- circular saws
- drills
- edge polishers
- frame saws

RANGE STATEMENT

- hole saws
 - Jenny Lind type polishers
 - line polishers
 - milling machines
 - rise and fall saws
 - rotating or transverse tables
 - stationary slab polishers
 - twin tables
 - water jets
 - wire saws.
- Quality requirements*** include:
- attention to specifications of work
 - control of handling procedures
 - quality of materials
 - relevant regulations, including:
 - Australian standards
 - internal company quality policy and standards
 - manufacturer specifications where specified
 - workplace operations and procedures
 - use and maintenance of equipment
 - workplace operations and procedures.
- Materials*** include:
- cementitious material
 - chemical adhesive
 - epoxy and polyester resins
 - plaster.
- Environmental requirements*** include:
- clean-up management
 - dust and noise
 - vibration
 - waste management.
- Statutory and regulatory authority*** includes:
- federal, state and local authorities administering applicable Acts, regulations and codes of practice.
- Adhesives applied as fillers*** may be to:
- apply reinforcing to slabs
 - fill natural fissures
 - laminate edges.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area