

## Unit of Competency Template

<b>UNIT CODE</b>	<b>CPCPRE2006</b>
<b>UNIT TITLE</b>	<b>Caulk prefabricated concrete elements</b>
<b>APPLICATION</b>	<p>This unit of competency specifies the skills and knowledge required to caulk concrete prefabricated elements according to specified requirements.</p> <p>It requires using tools and equipment appropriate for caulking. A person who has achieved this unit of competency would be expected to apply caulking techniques to vertical and horizontal joints between concrete prefabricated elements.</p> <p>Licensing, legislative, regulatory or certification requirements apply to this unit of competency in some states and territories. For further information, check with the relevant regulatory authority.</p>
<b>PREREQUISITE UNIT</b>	<b>Nil</b>
<b>COMPETENCY FIELD</b>	
<b>UNIT SECTOR</b>	<b>Prefabricated concrete</b>
<b>ELEMENTS</b>  Elements describe the essential outcomes.	<b>PERFORMANCE CRITERIA</b>  Performance criteria describe the performance needed to demonstrate achievement of the element.

<b>1. Access requirements to caulk prefabricated concrete elements.</b>	<p>1.1 Review the erection design documentation to clarify to caulking task.</p> <p>1.2 Review task specifications, and check to ensure they are in accordance with legislation, regulations, standards and codes of practice.</p> <p>1.3 Review work health and safety (WHS) requirements for the task in accordance with safety plans and policies.</p> <p>1.4 Identify safety signage and barricade requirements.</p> <p>1.5 Review environmental requirements for the task in accordance with environmental plans and legislative requirements.</p> <p>1.6 Access tools, equipment and materials required to carry out task.</p> <p>1.7 Locate the joints and confirm safety requirements including working aloft, fall protection, accessibility and drop zones.</p>
<b>2. Prepare to caulk prefabricated concrete elements.</b>	<p>2.1 Erect identified safety signage and barricade requirements, and fit personal protective equipment (PPE).</p> <p>2.2 Obtain plant, tools, equipment, check for serviceability and rectify or report any faults.</p> <p>2.3 Identify materials and associated quantities/measurements required for caulking according to specifications.</p>

<b>3. Prepare concrete prefabricated joint and apply caulking and finishing technique.</b>	<p>3.1 Remove any existing fill and clean joint between concrete prefabricated elements, to ensure the surface area is free from laitance, dust and dirt in accordance with manufacturer technical data sheet.</p> <p>3.2 Review need for bond break tape and install backing rod using a blunt edged tool, into joint between concrete prefabricated elements in accordance with manufacturer technical data sheet to control depth of injected caulking material.</p> <p>3.3 Check backing rod installation to ensure material is firmly secured within the joint, at the depth specified in the erection design documentation,</p> <p>3.4 Check backing rod installation is free of punctures and air pockets and complies with fire rating and acoustic requirements.</p> <p>3.4 Assess if priming agent is required and, if so, apply to both edges/sides of the backing rod and concrete prefabricated elements in accordance with the manufacturer technical data sheet.</p> <p>3.5 Access approved sealant and apply in a constant motion using steady pressure, filling the required void, to achieve a uniform appearance in accordance with the manufacturer technical data sheet.</p> <p>3.6 Back tool the sealant immediately after caulking, using an appropriate caulking tool in accordance with the manufacturer technical data sheet to achieve a smooth and uniform finish, ensuring both sides of the joint are flush with sealant chamfer end.</p>
<b>4. Clean up.</b>	<p>4.1 Clear work area and dispose of, reuse or recycle materials in accordance with regulatory and workplace requirements.</p> <p>4.2 Clean, check, maintain and store tools and equipment in accordance with manufacturer and workplace requirements.</p>
<p><b>FOUNDATION SKILLS</b></p> <p>Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.</p>	
<b>UNIT MAPPING INFORMATION</b>	<b>No equivalent unit.</b>
<b>LINKS</b>	<b><a href="#">Link to Companion Volume Implementation Guide.</a></b>

<b>TITLE</b>	<b>CPCPRE2006 Caulk prefabricated concrete elements</b>
<b>PERFORMANCE EVIDENCE</b>	<p>To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by</p> <ul style="list-style-type: none"><li>• caulking two prefabricated concrete elements.</li></ul>

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<p><b>KNOWLEDGE EVIDENCE</b></p>	<p>To be competent in this unit, a candidate must demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• compliance requirements of legislation, regulations, codes and Australian Standards relevant to joint caulking of concrete prefabricated elements, including: <ul style="list-style-type: none"> <li>○ environmental protection and waste disposal</li> <li>○ OHS/WHS regulations</li> </ul> </li> <li>• detrimental effect of water addition to concrete properties</li> <li>• precautions that should be taken to minimise any potential adverse effects when finishing concrete</li> <li>• manufacturer technical data sheet</li> <li>• types of drawings and specifications used to interpret concrete installation requirements</li> <li>• characteristics of caulking materials and their effect on, and appropriateness of use with, priming agents</li> <li>• types, characteristics and purposes of caulking surfaces and materials, including: <ul style="list-style-type: none"> <li>○ existing silicon or caulking material</li> <li>○ existing backing rod</li> <li>○ laitance</li> <li>○ concrete prefabricated bonding agent residue</li> <li>○ sealed concrete prefabricated surface</li> <li>○ painted concrete prefabricated surface</li> <li>○ moisture content of joint</li> <li>○ silicone</li> <li>○ polyurethane</li> <li>○ modified polymer</li> <li>○ polysulphide</li> <li>○ acrylic</li> <li>○ fire rating</li> </ul> </li> <li>• caulking tool types and their purpose, including: <ul style="list-style-type: none"> <li>○ wire brush</li> <li>○ soft brush</li> <li>○ scraper</li> <li>○ air compressors and hoses</li> <li>○ portable blower</li> <li>○ sander/grinder</li> <li>○ caulking 'slicks' (sausages)</li> <li>○ spatula</li> <li>○ roller</li> <li>○ putty knife</li> <li>○ caulking gun</li> <li>○ power leads</li> <li>○ testing equipment (moisture meter)</li> </ul> </li> <li>• workplace requirements for caulking prefabricated concrete elements: <ul style="list-style-type: none"> <li>○ cleaning up the work area</li> <li>○ maintaining and storing plant, labelling, tools and equipment</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>○ reporting problems</li> <li>○ quality</li> <li>• terminology used for caulking</li> <li>• manufacturer technical requirements</li> <li>• specifications used for joint caulking</li> <li>• types of concrete prefabricated elements</li> <li>• fire rating requirements relevant to concrete prefabricated element rectification</li> <li>• workplace procedures related to communication protocols</li> <li>• relevant OHS/WHs regulations, policies and codes of practice, including: <ul style="list-style-type: none"> <li>○ use of personal protective equipment (PPE)</li> <li>○ fall protection</li> <li>○ drop zones</li> <li>○ hazardous substances</li> <li>○ safe manual handling techniques</li> </ul> </li> <li>• principles of sustainability relevant to material reuse</li> <li>• work planning and logical task sequencing</li> <li>• types of concrete surface variables that reduce optimal sealant adhesion</li> <li>• concrete prefabricated release agent residue</li> <li>• impact of laitance, dirt and dust</li> <li>• difference between closed cell and open cell backing rod</li> <li>• processes for calculating material measurements and quantities.</li> </ul>
<b>ASSESSMENT CONDITIONS</b>	<p>Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.</p> <p>Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.</p> <p>Candidates must have access to erection design documentation, manufacturer technical data sheets, materials, plant, tools and equipment required to achieve the performance evidence.</p>
<b>LINKS</b>	<p>Link to Companion Volume Implementation Guide.</p>