

<b>TSC Category</b>	Special Processes					
<b>TSC</b>	Sealants Process					
<b>TSC Description</b>	Perform sealants applications on aircraft parts and components using appropriate tools, equipment, materials and methods in accordance with applicable technical manuals and organisational procedures					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
	<b>AER-ACO-1046-1.1</b>	<b>AER-ACO-2046-1.1</b>	<b>AER-ACO-3046-1.1</b>			
	Carry out sealant processing works using appropriate tools, equipment, materials and methods	Identify appropriate resources and conduct conformance checks on sealed aircraft parts and components for compliance with required specifications and defect-free production	Develop process plans to specify appropriate materials, techniques and parameters to be used for sealant preparation, application and removal			
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>Relevant local and international standards (AS7200, AS7108)</li> <li>Organisational standard operating procedures (SOPs)</li> <li>Types of sealants</li> <li>Fundamentals of sealant application</li> <li>Concepts of storage, shelf life and out time</li> <li>Concepts of sealing compounds</li> <li>Types and uses of adhesion promoter</li> <li>Techniques for hand mixing and mechanical mixing of sealant compounds</li> <li>Methods for using topcoats and fuel sealants</li> <li>Workplace safety and health requirements</li> </ul>	<ul style="list-style-type: none"> <li>Relevant local and international standards (AS7200, AS7108)</li> <li>Organisational standard operating procedures (SOPs)</li> <li>Types and properties of sealants</li> <li>Inspection and testing methods for raw materials and sealants</li> <li>Promoters and pre-treatment methods</li> <li>Masking, mixing and curing techniques</li> <li>Advanced methods for sealant application</li> <li>Sealant removal techniques on sheet metal and composites</li> <li>Packing, inspection and delivery requirements for sealants</li> <li>Workplace safety, quality and audit requirements</li> </ul>	<ul style="list-style-type: none"> <li>Relevant local and international standards (AS7200, AS7108)</li> <li>Organisational standard operating procedures (SOPs)</li> <li>Types of aircraft parts and components</li> <li>Material characterisation techniques</li> <li>Uses and applications of sealants</li> <li>Advanced testing methods for raw materials and sealants</li> <li>Functions of promoters and pre-treatment methods</li> <li>Functions of masking, mixing and curing</li> <li>Advanced methods for sealant application and removal on non-traditional materials</li> <li>Concepts of quality assurance and control in sealant processes</li> <li>Workplace safety, quality and audit requirements</li> </ul>			

**SKILLS FRAMEWORK FOR AEROSPACE  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE**

<p><b>Abilities</b></p>	<ul style="list-style-type: none"> <li>• Prepare surfaces, parts and components for sealant application</li> <li>• Operate appropriate equipment and tools as per work instructions</li> <li>• Perform masking and liquid and gas tight sealing processes</li> <li>• Perform mixing of sealants as per work instructions</li> <li>• Perform sealing of basic structures</li> <li>• Handle materials using appropriate methods and equipment during packaging, storage and delivery processes</li> <li>• Update relevant documents upon completion of job</li> <li>• Adhere to technical manuals and SOPs</li> <li>• Observe and apply safety practices in the workplace</li> </ul>	<ul style="list-style-type: none"> <li>• Inspect raw materials and recommend storage and pre-treatment methods</li> <li>• Interpret task requirements from process work plans to verify adherence by the team</li> <li>• Select appropriate tools, equipment and machinery for sealant application</li> <li>• Identify possible leak paths</li> <li>• Inspect sealed aircraft parts and components in accordance with specifications</li> <li>• Validate against quality requirements for applied and hardened sealing compounds</li> <li>• Take corrective actions to address non-conformances</li> <li>• Obtain verification for work done from quality assurance or relevant personnel</li> <li>• Ensure documentation in accordance regulatory requirements</li> <li>• Ensure safety practices in the workplace</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse base materials and characteristics of aircraft parts and components for sealant application</li> <li>• Assess environmental impact on sealant compounds</li> <li>• Identify appropriate techniques for fillet sealing including spatulable sealant and brushable sealant</li> <li>• Specify pre-treatment methods, and masking, mixing and curing techniques</li> <li>• Recommend techniques for isolation of materials to prevent corrosion</li> <li>• Develop technical specifications and process plans</li> <li>• Incorporate testing methods into specification plans</li> <li>• Define process parameters and work instructions for sealant application</li> <li>• Design and set up quality control procedures to address aspects of product quality and compliance to regulatory requirements</li> <li>• Recommend corrective actions to address non-conformances</li> </ul>			
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