

<b>TSC Category</b>	Special Processes					
<b>TSC</b>	Non-metallic Materials Testing					
<b>TSC Description</b>	Conduct non-metallic materials testing (NMMT) to evaluate compatibility and durability of non-metallic materials using appropriate tools, equipment, materials and methods, and record test results obtained in accordance with the applicable standards 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-1045-1.1</b>	<b>AER-ACO-2045-1.1</b>	<b>AER-ACO-3045-1.1</b>			
	Carry out non-metallic materials testing (NMMT) on using appropriate tools, equipment and methods and in accordance with organisational procedures	Interpret results of non-metallic materials testing (NMMT) with respect to applicable codes, standards and specifications	Determine appropriate methods, techniques and procedures to be used for non-metallic materials testing (NMMT)			
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>Relevant local and international standards (AS7122)</li> <li>Types of non-metallic materials</li> <li>Characteristics of non-metallic materials</li> <li>Types of NMMT equipment</li> <li>Relevant standards and regulations for NMMT</li> <li>Types of personal protective equipment (PPE)</li> <li>Handling and storage of non-metallic materials</li> <li>Local and international codes, safety standards and certification requirements</li> </ul>	<ul style="list-style-type: none"> <li>Relevant local and international standards (AS7122)</li> <li>Types and properties of non-metallic materials</li> <li>Methods of NMMT equipment calibration and maintenance</li> <li>Factors affecting properties of non-metallic materials</li> <li>Principles of mechanical testing for non-metallic materials</li> <li>Principles of physical testing for non-metallic materials</li> <li>Principles of chemical testing for non-metallic materials</li> <li>Principles of thermal testing for non-metallic materials</li> <li>Principles of flammability testing for non-metallic materials</li> <li>Local and international codes, safety standards, specifications and certification requirements</li> </ul>	<ul style="list-style-type: none"> <li>Relevant local and international standards (AS7122)</li> <li>Types, properties and applications of non-metallic materials</li> <li>Types of NMMT techniques and procedures</li> <li>Methods of NMMT equipment evaluation</li> <li>Principles of mechanical testing and applications</li> <li>Principles of physical testing and applications</li> <li>Principles of chemical testing and applications</li> <li>Principles of thermal testing and applications</li> <li>Principles of flammability testing and applications</li> <li>Local and international codes, safety standards, specifications and certification requirements</li> </ul>			

<p><b>Abilities</b></p>	<ul style="list-style-type: none"> <li>• Prepare components according to NMMT requirements</li> <li>• Perform pre-operational checks and calibration of NMMT equipment</li> <li>• Perform NMMT to obtain sufficient indications for evaluation</li> <li>• Document test results according to approved format for legibility, accuracy and completeness</li> <li>• Select and use suitable PPE appropriate to the job requirements</li> <li>• Perform the handling and storage of non-metallic materials</li> <li>• Abide by international codes, specifications and certification requirements</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>• Explain types and characteristics of non-metallic materials</li> <li>• Evaluate factors affecting non-metallic materials</li> <li>• Identify calibration and maintenance techniques for NMMT equipment</li> <li>• Verify that appropriate mechanical, physical, chemical, thermal and flammability testing are conducted to identify defects in non-metallic material structures</li> <li>• Interpret test results obtained to evaluate post-testing indications obtained</li> <li>• Review test results to identify flaws and defects</li> <li>• Perform upkeep of non-metallic testing result records in accordance with required specifications</li> <li>• Abide by international codes, specifications and certification requirements</li> <li>• Ensure safety practices in the workplace</li> </ul>	<ul style="list-style-type: none"> <li>• Examine different types of non-metallic materials used in aircraft construction</li> <li>• Explain the operating principles of NMMT equipment and technologies</li> <li>• Interpret codes, standards, specifications and procedures for NMMT</li> <li>• Evaluate and select appropriate NMMT procedures to be used to fulfil job requirements</li> <li>• Develop NMMT plans and specifications</li> <li>• Apply principles of mechanical, physical, chemical, thermal and flammability testing processes to identify defects in non-metallic material structures</li> <li>• Recommend corrective measures post NMMT as required</li> <li>• Ensure compliance with international codes, specifications, safety and certification requirements</li> </ul>			
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