

SSNST08 Textile Testing Technician

1. Job role

TCF sub-sector	Natural and Synthetic Textile Manufacturing
Functional area	Quality, Safety, Testing and Compliance
Job role	SSNST08 Textile Testing Technician
Job role description	Performs laboratory and production-based testing, inspection and analysis of textile fibres, yarns, fabrics and finished textile products within the natural and synthetic textiles sector of the Textile, Clothing and Footwear (TCF) industry. This role is identified within the Quality, Safety, Testing and Compliance function of the Natural and Synthetic Textile Manufacturing Occupational Framework as a scale-dependent occupation. The Textile Testing Technician is responsible for evaluating textile materials and products against technical specifications, performance standards, regulatory requirements and customer expectations. The role supports testing activities across a broad range of textile products including apparel textiles, furnishing fabrics, industrial textiles, technical textiles, medical textiles, filtration materials, transport textiles, protective materials and advanced textile systems. The Textile Testing Technician conducts physical, chemical, mechanical and functional testing on natural fibres such as wool and cotton and synthetic fibres including polyester, nylon, acrylic, polypropylene and blended materials. Testing activities may include tensile strength testing, abrasion resistance, colour fastness, dimensional stability, flammability, moisture management, filtration efficiency, coating adhesion, seam strength and specialised technical performance testing. The role requires operation of laboratory equipment, testing instruments and digital monitoring systems while maintaining strict compliance with testing protocols, Australian Standards, ISO standards, customer specifications and quality management systems. The Textile Testing Technician works closely with textile technologists, quality assurance personnel, production teams, laboratory managers, product developers and external certification bodies to ensure textile products meet required standards and are suitable for commercial and technical applications. The role also contributes to troubleshooting, product validation, research and development activities, process optimisation,

	compliance reporting and continuous improvement initiatives supporting advanced textile manufacturing capability in Australia.
Performance expectations	• Conducting accurate and reliable textile testing and analysis activities • Ensuring textile products comply with technical specifications and standards • Maintaining integrity, calibration and accuracy of testing equipment and procedures • Identifying defects, non-conformance issues and product performance risks • Supporting quality assurance, compliance and product validation activities • Maintaining accurate testing records, traceability and reporting documentation • Supporting effective communication between laboratory, production and technical teams • Contributing to product improvement, troubleshooting and continuous improvement initiatives • Supporting operational compliance with safety, quality and regulatory requirements
Specialisation	Textile testing, laboratory analysis, textile standards compliance, fibre and fabric performance evaluation, technical textile validation and quality assurance testing
Application in other TCF sectors	Technical textiles, industrial textiles, apparel textiles, furnishing textiles, medical textiles, defence textiles, automotive textiles, filtration systems and advanced manufacturing

2. Key tasks and critical work functions

Key tasks	• Conducting physical, chemical and functional textile testing activities • Preparing textile samples and test specimens according to standard procedures • Operating laboratory testing instruments and analytical equipment • Performing tensile, abrasion, colour fastness, flammability and dimensional stability testing • Recording, analysing and interpreting testing data and results • Identifying product defects, non-conformance issues and performance inconsistencies • Maintaining calibration and cleanliness of laboratory equipment • Preparing technical reports, compliance records and testing documentation • Supporting production troubleshooting and product validation activities • Following workplace safety, laboratory and quality assurance procedures
Critical work functions	• Ensuring textile products comply with technical, regulatory and customer standards • Maintaining integrity, repeatability and accuracy of textile testing activities • Preventing release of defective or non-compliant textile products

	- Supporting efficient communication between laboratory and production operations - Maintaining safe operation of laboratory and testing equipment - Supporting compliance with Australian Standards, ISO requirements and quality systems - Maintaining traceability and documentation integrity - Contributing to product reliability, customer satisfaction and manufacturing capability
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3. Technical skills

Textile testing operations	Conducting physical, chemical and functional textile testing
Laboratory equipment operation	Using textile testing instruments and analytical systems
Fibre and fabric analysis	Understanding textile structures and material performance
Standards compliance	Applying Australian Standards, ISO standards and customer requirements
Data analysis and reporting	Recording, interpreting and communicating testing outcomes
Quality assurance support	Identifying defects and supporting compliance activities
Equipment calibration and maintenance	Maintaining testing accuracy and equipment reliability
Documentation and traceability	Maintaining testing records and compliance documentation

4. Generic Skills

Attention to detail	Maintaining testing accuracy and laboratory integrity
Communication	Working with technical, laboratory and production teams
Problem solving	Investigating textile defects and performance issues
Analytical thinking	Interpreting testing data and technical outcomes
Teamwork	Supporting integrated textile quality and compliance operations
Time management	Meeting testing schedules and reporting deadlines
Adaptability	Working across multiple textile products and testing systems
Professionalism	Following laboratory, safety and quality standards

5. Emerging skills

Emerging skills	- Smart textile testing and sensor-integrated analysis systems - Automated laboratory and digital testing technologies - Sustainable textile testing and lifecycle assessment systems - Industry 4.0 integration in textile quality and compliance systems - Advanced performance testing for technical and functional textiles
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	Data-driven textile analytics and predictive quality systems
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6. VET Qualifications and Skill Sets

Entry-level preparation	MSL30122 Certificate III in Laboratory Skills or equivalent
Advanced development	MSL50122 Diploma of Laboratory Technology or equivalent or bachelor's degree in Textile Technology, Materials Science or Applied Laboratory Science

7. Job progression

Possible job progression	Laboratory Assistant → Textile Testing Technician → Senior Textile Testing Technician → Quality Assurance Coordinator → Laboratory or Technical Manager
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8. Classification

Australian Qualifications Framework	Level 4-6
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 2-3
Open Source Classification of Occupations for Australia (OSCA)	Textile Testing Technician - Natural and Synthetic Textile Manufacturing



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