

SSCAR07 Yarn / Process Quality Technician

1. Job role

TCF sub-sector	Carpet and Textile Floor Covering Manufacturing
Functional area	Yarn Production and Preparation
Job role	SSCAR07 Yarn / Process Quality Technician
Job role description	Monitors, tests and evaluates yarn and process quality across carpet manufacturing operations to ensure compliance with specifications and standards. In Australia's carpet manufacturing industry, the Yarn / Process Quality Technician plays a critical role in maintaining product integrity by assessing yarn characteristics and process performance throughout production. This includes testing fibre inputs, yarn properties and in-process outputs to detect variation and prevent defects. The role works closely with yarn production, dyeing, tufting and finishing teams to identify issues, implement corrective actions and support continuous improvement in a highly automated and quality-driven manufacturing environment.
Performance expectations	• Ensuring yarn and process outputs meet quality specifications • Conducting accurate testing and measurement of yarn properties • Identifying defects, variation and non-conformance • Supporting process consistency and stability • Minimising waste, rework and product defects • Maintaining accurate quality records and traceability • Supporting compliance with industry and regulatory standards • Contributing to continuous improvement initiatives
Specialisation	Yarn testing, fibre analysis, colour consistency, process quality monitoring, statistical process control (SPC)
Application in other sectors	• Textile and apparel quality control • Synthetic fibre and yarn production • Industrial textile manufacturing • Automotive textile production • Any process manufacturing environment requiring quality assurance

2. Key tasks and critical work functions

Key tasks	• Conducting yarn testing (strength, twist, count, evenness) • Sampling raw materials and in-process production • Monitoring process parameters and outputs
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	• Recording and analysing quality data • Identifying defects and non-conformance • Communicating issues to production teams • Supporting corrective and preventive actions • Maintaining testing equipment and calibration
Critical work functions	• Ensuring consistency of yarn and process quality • Detecting variation and preventing defects early • Supporting stable and controlled production processes • Maintaining traceability and documentation • Supporting compliance with quality standards • Enabling continuous improvement through data analysis • Coordinating quality outcomes across production stages

3. Technical skills

Yarn testing	Measuring yarn properties such as strength, twist and count
Fibre analysis	Assessing raw material quality and composition
Process monitoring	Tracking production parameters and outputs
Quality control systems	Applying standards and inspection procedures
Data analysis	Interpreting quality data and trends
Statistical process control	Using SPC tools to monitor variation
Equipment calibration	Maintaining and calibrating testing instruments
Documentation	Recording and reporting quality results

4. Generic Skills

Attention to detail	Ensuring accuracy in testing and inspection
Analytical thinking	Interpreting data and identifying trends
Problem solving	Investigating quality issues
Communication	Reporting findings and coordinating with teams
Time management	Managing testing schedules and priorities
Teamwork	Working across production and quality teams
Integrity	Maintaining accuracy and compliance in reporting

5. Emerging skills

Emerging skills	• Automated quality monitoring systems • Digital data capture and analytics platforms • Integration with ERP and MES systems • Advanced fibre and material testing technologies • Sustainability and traceability systems • AI-assisted defect detection and quality prediction
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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

7. Job progression

Possible job progression	Production Operator → Quality Technician → Senior Quality Technician → Quality Supervisor → Quality Assurance Manager
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8. Classification

Australian Qualifications Framework	Level 3-5
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 3
Open Source Classification of Occupations for Australia (OSCA)	Quality Assurance Technician - Textile / Manufacturing



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