



Australian Government

Department of Education, Employment and Workplace Relations

MSAPMOPS201A Cut polymer materials

Revision Number: 1

MSAPMOPS201A Cut polymer materials

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to prepare and operate specialised equipment or procedures to cut polymer materials to size, shape or to a pattern, and resolve routine problems to procedures.
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Application of the Unit

Application of the unit	This unit of competency applies to operators who are involved in the use of specialised equipment or processes to cut polymer material such as sheet, pipe or rod. The key factors are the making of products to meet quality standards and workplace requirements. This unit of competency is typically performed by operators working either independently or as part of a work team. It includes: • checking job sheets for work to be done and identifying the priority in which jobs/product will be made/completed • setting up equipment • preparing materials as required • ensuring that safety procedures are applied to reduce risks • identifying and taking action on routine process problems • completing logs and reports.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Check work requirements	1.1. Identify work requirements 1.2. Identify product, materials and equipment requirements for job 1.3. Recognise hazards and adopt steps required to ensure safety 1.4. Check with supervisor/appropriate person if requirements are not in accordance with usual practice
2. Conduct pre-cutting operations as required	2.1. Check hazard controls are operational and appropriate 2.2. Check raw materials are correct 2.3. Mark out/lay out job for cutting 2.4. Undertake other pre-cutting requirements in accordance with procedures
3. Cut to requirements	3.1. Operate cutting tools/equipment to cut materials to procedures 3.2. Monitor dimensions, shape, quality and quantity of cuts 3.3. Remedy faults and non-conformances by correcting operation or adjusting tools/equipment as required 3.4. Collect material which is able to be recycled or reused, separate and dispose of waste and scrap
4. Resolve routine problems	4.1. Identify likely faults that occur during the operation/task 4.2. Identify and take action on causes of routine faults in accordance with procedures 4.3. Make sure appropriate records are maintained to meet procedures 4.4. Identify non-routine problems and report to designated person

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- applying knowledge of the materials, equipment and processes sufficient to recognise out of specification products, process problems and materials faults
- identifying hazards associated with the job/work environment
- applying the hierarchy of control to the hazards
- distinguishing between causes of faults such as:
 - raw materials
 - mechanical
 - electrical/instrumental
- reading and interpreting typical product specifications, job sheets, procedures, material labels and safety information as provided to operators
- writing skills to the level of completing workplace forms
- basic numeracy skills to determine that two 25 kg bags are needed to make up a requirement for 50 kg

Required knowledge

- organisation procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards
- different types of materials and their behaviour when cut, different cutting equipment and suitability for materials
- controls of cutting equipment
- routine faults in products and routine problems in process
- causes of faults such as materials deficiencies, heat, changes to materials during the cutting process, equipment adjustments/set-up and equipment maintenance requirements
- original manufacturer instructions and guidelines for the safe use of the cutting tools/equipment
- relevant procedures relating to safe working practices prescribed for the equipment
- local occupational health and safety (OHS) legislation and/or regulations
- site-specific instructions based on production requirements

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Demonstrates skills and knowledge required to:

- recognise the importance of material properties and qualities
- apply approved procedures
- take appropriate action to resolve faults or report faults to appropriate personnel
- explain and implement emergency shutdown procedures.

Consistent performance should be demonstrated. For example, look to see that:

- material cutting production standards are met consistently
- upstream and downstream communication is timely and effective
- procedures and work instructions are read and interpreted correctly
- problems are identified and appropriate action is taken (i.e. the problem is fixed or reported)
- all safety procedures are followed.

Context of and specific resources for assessment

Assessment may occur on the job or in an appropriately simulated environment. Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.

Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.

Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.

EVIDENCE GUIDE	
Method of assessment	• Assessment must satisfy the endorsed assessment guidelines of the Manufacturing Training Package. • Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge. • Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application. • Assessment may be applied under project related conditions (real or simulated) and require evidence of process. • Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances. Assessment may be in conjunction with assessment of other units of competency where required.
Guidance information for assessment	Assessment processes and techniques must be culturally appropriate and appropriate to the language and literacy capacity of the candidate and the work being performed.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Context	This unit of competency applies to operators working either independently or as part of a work team.
Work requirements	Work requirements may be determined from: • job/shop orders • plans/specifications • procedures • other means
Procedures	Procedures include: • all relevant workplace procedures • work instructions • temporary instructions • relevant industry and government codes and standards
Tools and equipment	Tools and equipment may include: • guillotines, power saws, jig saws, band saws and thermal cutting devices • controller, such as PLC (Programmable Logic Controller) if fitted • hand tools as required • relevant personal protective equipment
Hazards	Typical hazards include: • fibres and dusts - airborne and handled • manual handling hazards • power tools, leads and power supplies • stationery and moving machinery, parts and components
Problems	Respond to routine problems means apply known solutions to a limited range of predictable problems. Typical process and product problems

RANGE STATEMENT	
	may include: • pattern, e.g. pattern incorrect, marking errors • equipment, e.g. wear and breakage, temperature variations, loss of power or drives, controller sequence and timer issues • process, e.g. sequencing problems
Records	Records may include: • log books/sheets • electronic records • job/work sheets • other records
Variables	Key variables to be monitored include: • material characteristics • material availability • type of cutting equipment • cutting edge condition

Unit Sector(s)

Unit sector	
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

