



Australian Government

Department of Education, Employment and Workplace Relations

LMTTN2004B Undertake web bonding processes

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the skills and knowledge to undertake web bonding processes.

Application of the Unit

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The unit covers the skills needed to undertake a web bonding process.

It applies to chemical, thermal, mechanical and latex bonding processes.

Work may be conducted in small to large scale enterprises and may involve individual and team activities.

The application of this unit is according to OHS practices of the enterprise and workplace practices, which may include:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- standard operating procedures
- work instructions
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control, and recycling

This unit requires the application of skills associated with planning and organising for the safe and effective application of web bonding processes and technology. This unit also requires an ability to interpret and communicate job related information, check the quality of outcomes and identify and address problems relating to own work. Self management skills are applied to ensure workplace and quality standards are achieved.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for web bonding	1.1 Specifications are checked to identify requirements for production. 1.2 Web bonding process is identified and where options exist, correct web bonding process is selected according to product requirements. 1.3 Bonding raw material supply is checked where appropriate. 1.4 Machine controls are set to meet product requirements.
2 Undertake web bonding	2.1 Formed web supply and speed is checked for conformance to specification. 2.2 Web bonding process is monitored and operational parameters are adjusted to meet product requirements. 2.3 Machine operations are monitored to ensure safe and correct operation. 2.4 Minor product process and machine faults are identified and corrected where necessary to meet specified requirements and are reported. 2.5 Major machine faults are reported. 2.6 Machine is cleaned when required. 2.7 Machine is operated according to OHS practices.
3 Check bonded web quality	3.1 Bonded web is checked against quality standards and production requirements. 3.2 Bonded web faults and non-conformances are identified and rectified or reported.
4 Complete web bonding process	4.1 Bonded web is sent for web conversion and finishing or next manufacturing or packing process. 4.2 Cleaning of area is completed to ensure work environment is maintained in a safe and productive manner. 4.3 Production records are accurately completed.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Demonstrates knowledge of:

- underpinning knowledge of the web bonding process, including chemical bonding (eg foam, spray, or print bonding), thermal bonding, mechanical bonding
- where chemical bonding is used knowledge includes binding agent preparation and settings
- thermal bonding knowledge includes calender and air bonding and covers fusible, bi-component and co-polyester fibres
- mechanical bonding includes needle punch, stitchbond and hydro-entanglement
- OHS practices, including hazard identification and control measures
- quality practices
- workplace practices
- recording and reporting practices

Demonstrates skills to:

- check machine safety equipment and report any faults
- prepare materials for web forming if required
- load and unload materials
- start and stop machines according to specifications
- monitor machine operations, including machine production readings
- recognise, rectify and report machine faults or problems as required
- clean machines as required
- check machine maintenance records
- recognise fault conditions
- read, interpret and follow information on work specifications, standard operating procedures and work instructions, and other reference material
- maintain accurate records
- communicate within the workplace
- sequence operations
- meet specifications
- clarify and check task-related information
- carry out work according to OHS practices

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects of evidence	Demonstrates skills and knowledge to: • interpret production orders and schedules • set and check machine settings to meet production requirements • monitor web bonding operations according to defined procedures and methods • make minor adjustments • check product samples against quality standards • load and unload products • complete records accurately and completely • apply OHS practices in work operations
Consistency in performance	Consistently applies skills and knowledge when: • organising work • completing tasks according to instructions • working systematically with attention to detail • identifying improvements and avoiding damage • using workplace practices • using OHS practices • recording and reporting accidents and incidents • assessing operational readiness of equipment • recognising and adapting to cultural differences in the workplace, including modes of behaviour and interactions
Resource implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Context for assessment	Assessment may occur on the job or in an appropriately simulated environment.
Interdependent assessment	This unit may be assessed independently or in combination with other relevant units.

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. Add any 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.

Legislative/regulatory requirements	All work must comply with relevant Federal and State or Territory legislative or regulatory requirements.
Web bonding processes may include	• chemical bonding, including • solvent bonding • foam bonding • hydrogen bonding • print bonding • latex addition to formed web • inorganic binders • thermal bonding, including calender bonding - engraved calender bonding and air bonding. Thermal bonding covers the following fibres: • fusible fibres • bi-components • co-polyesters • mechanical bonding, including: • needle punch • stitchbond • hydro-entanglement
Machine operations may include	• speed settings for web progression • heat settings • solution settings • needle punch settings • settings made using computer, mechanical and electronic controls
OHS practices	OHS practices include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and may relate to: • manual handling techniques • standard operating procedures • personal protective equipment • safe materials handling • taking of rest breaks • ergonomic arrangement of workplaces

- following marked walkways
- safe storage of equipment
- housekeeping
- reporting accidents and incidents
- environmental practices

Unit Sector(s)

Sector Technical Textiles and Non-wovens