



Australian Government

MSTTN2004 Undertake web bonding processes

Release: 1

MSTTN2004 Undertake web bonding processes

Modification History

Release 1. Supersedes and is equivalent to LMTTN2004B Undertake web bonding processes

Application

This unit of competency covers the skills and knowledge required to undertake web bonding processes.

The unit of competency 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.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Technical textiles and non-wovens

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 **Determine job requirements**

- 1.1 Follow standard operating procedures (SOPs)
- 1.2 Comply with work health and safety (WHS) requirements at all times
- 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs
- 1.4 Identify job requirements from specifications, drawings, job sheets or work instructions

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|---|---|-----|---|
| 2 | Prepare for web bonding | 2.1 | Check specifications to identify requirements for production |
| | | 2.2 | Identify web bonding process, and where options exist, select correct web bonding process according to product requirements |
| | | 2.3 | Check bonding raw material supply where appropriate |
| | | 2.4 | Set machine controls to meet product requirements |
| | | | |
| 3 | Undertake web bonding | 3.1 | Check formed web supply and speed conforms to specification |
| | | 3.2 | Monitor web bonding process and adjust operational parameters to meet product requirements. |
| | | 3.3 | Monitor machine operations to ensure safe and correct operation |
| | | 3.4 | Identify, correct and report minor product, process and machine faults where necessary to meet specified requirements |
| | | 3.5 | Operate machine according to WHS and workplace practices and report major machine faults |
| | | | |
| 4 | Check quality and complete web bonding process | 4.1 | Check bonded web against quality standards and production requirements |
| | | 4.2 | Identify, rectify or report bonded web faults and non-conformances |
| | | 4.3 | Send bonded web for web conversion and finishing or next manufacturing or packing process |
| | | 4.4 | Clean area to maintain a safe and productive work environment |
| | | 4.5 | Complete production records |

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Workplace procedures include one or more of the following:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- SOPs
- 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
- WHS practices

Australian Standards include:

- the relevant industry or Australian Standards that are current at the time this unit is being undertaken

Web bonding processes include one or more of the following:

- chemical bonding:
 - solvent bonding
 - foam bonding
 - hydrogen bonding
 - print bonding
 - latex addition to formed web
 - inorganic binders
- thermal bonding (for fusible, bi-component and co-polyester fibres):
 - calender bonding
 - engraved calender bonding
 - air bonding
- mechanical bonding:

- needle punch
- stitchbond
- hydro-entanglement

Machine operations include one or more of the following:

- speed settings for web progression
- heat settings
- solution settings
- needle punch settings
- settings made using computer, mechanical and electronic controls

WHS practices

WHS practices must include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and include one or more of the following:

- manual handling techniques
- SOPs
- PPE
- safe materials handling
- taking of rest breaks
- ergonomic arrangement of workplaces
- following marked walkways
- safe storage of equipment
- housekeeping
- reporting accidents and incidents
- other WHS practices relevant to the job and enterprise

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTTN2004B Undertake web bonding processes

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTTN2004 Undertake web bonding processes

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include:

- reading and following work instructions, standard operating procedures (SOPs), safe work practices and other reference material
- applying relevant standards
- interpreting production orders and schedules
- setting and checking machine settings to meet production requirements on at least two (2) occasions
- monitoring web bonding operations according to defined procedures and methods on at least two (2) occasions
- recognising, rectifying and reporting machine faults or problems as required
- making minor adjustments
- checking product samples against quality standards and responding to faulty product
- loading and unloading products
- completing records accurately and completely
- applying workplace procedures.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- relevant Australian Standards
- web bonding processes, including chemical bonding (e.g. foam, spray or print bonding), thermal bonding and mechanical bonding
- chemical bonding:
 - binding agent preparation and settings
- thermal bonding:
 - calender and air bonding for fusible, bi-component and co-polyester fibres
- mechanical bonding:
 - needle punch
 - stitchbond
 - hydro-entanglement

- work health and safety (WHS) practices, including hazard identification and control measures
- quality practices
- workplace procedures
- recording and reporting practices.

Assessment Conditions

- Assessors must:
 - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator
 - have vocational competency in undertaking web bonding processes, at least to the level being assessed, with relevant industry knowledge and experience.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications associated with this unit.

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