



Australian Government

PMBPROD242 Bond polymers to surfaces

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to PMBPROD242A Bond polymers to surfaces

Application

This unit of competency covers the skills and knowledge required to join a solid polymer to another solid surface using adhesives, cohesives, solvents or other joining materials. The polymer may be thermoplastic or cured or uncured thermoset.

This unit of competency applies to operators who are required to select materials and equipment, prepare substrate and joining materials, make the join and apply required conditions, and recognise routine and non-routine problems and take appropriate action.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members, team leader and supervisor, as appropriate.

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

Pre-requisite Unit

Nil

Competency Field

Production

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 Check work requirements

- 1.1 Identify work requirements from production plan or request
- 1.2 Select and check appropriate equipment or tool/s, techniques and materials to be used
- 1.3 Recognise requirements which may not be in accordance with usual practice

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| | | 1.4 | Ask questions of appropriate person to confirm unusual practice |
| | | 1.5 | Ensure housekeeping is to requirements |
| | | 1.6 | Identify hazards associated with the job and take appropriate action |
| | | 1.7 | Perform other pre-operational checks to procedures |
| 2 | Prepare materials for joining | 2.1 | Check substrate for suitability |
| | | 2.2 | Clean/activate substrates to procedures as required |
| 3 | Apply joining materials | 3.1 | Prepare joining materials |
| | | 3.2 | Apply joining materials to substrate(s) as required |
| | | 3.3 | Monitor drying/setting as appropriate |
| | | 3.4 | Apply subsequent material/coats as required |
| | | 3.5 | Complete logs and records as required |
| | | 3.6 | Keep equipment and work area clean |
| 4 | Join materials | 4.1 | Set up required jigs and equipment for joining |
| | | 4.2 | Bring surfaces together when appropriate |
| | | 4.3 | Ensure intimate and continuous contact between surfaces |
| | | 4.4 | Apply required conditions to join until joining process is complete |
| 5 | Respond to routine problems in accordance with procedures | 5.1 | Recognise known faults that occur during the operation |
| | | 5.2 | Identify and take action on causes of routine faults |
| | | 5.3 | Log problems as required |

5.4 Identify non-routine problems and report to designated person

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.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures

- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment

Tools and equipment include one or more of:

- brush
- syringe
- pipette
- spray gun
- application scraper

Additional tools and equipment will be selected as required from:

- vapour extraction equipment
- application booths
- hand rollers
- presses
- hoists/lifting equipment not requiring any special permits or licences
- manual handling aids, such as hand carts and trolleys
- relevant personal protective equipment (PPE).

Hazards

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- fumes, humidity, air temperatures, radiant heat, hot dies
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- smoke, dust, vapours or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- incorrect joining materials
- variations in materials
- contamination of joining materials or substrates
- inappropriate application of materials
- dust and other contamination
- drying rate problems
- film thickness variation
- film application rates
- coverage issues
- tack (too much, not enough, long leg/short leg)
- products with substrate or other faults.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>