



**Australian Government**

# **ICPPRN3420 Produce complex pad printed product**

**Release: 1**

# ICPPRN3420 Produce complex pad printed product

## Modification History

| Release   | Comments                                                                                     |
|-----------|----------------------------------------------------------------------------------------------|
| Release 1 | This version first released with ICP Printing and Graphic Arts Training Package Version 4.0. |

## Application

This unit describes the skills and knowledge required to produce complex pad printed product ensuring an efficient non-routine production flow that maintains product quality standards.

It applies to individuals who work under supervision and are responsibility for ensuring the production process is maintained in accordance with the requirements of the proof, and any equipment issues and production problems are identified and resolved with minimum downtime.

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

## Unit Sector

Printing

## Elements and Performance Criteria

| ELEMENT                                          | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                            |
| 1. Maintain non-routine pad printing process     | 1.1 Check and adjust location of objects into fixtures according to manufacturer specifications and work health and safety (WHS) requirements<br>1.2 Review and adjust printing plates and printing pad condition<br>1.3 Check and adjust spatulas, doctor blades and ink cups as required<br>1.4 Observe and adjust printing ink viscosity<br>1.5 Monitor and adjust in-line loading, pre-treatment, drying and ejection systems |

| ELEMENT                                    | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2. Maintain non-routine production process | 2.1 Use machine controls as required<br>2.2 Monitor and verify performance using the process control system<br>2.3 Monitor and adjust ink performance, colour, register and position<br>2.4 Report process adjustments to eliminate problems according to enterprise procedures and quality requirements                                                                                                                                                                                                                                                                                              |
| 3. Identify and rectify faults             | 3.1 Identify and report problems in machine operation according to enterprise procedures<br>3.2 Carry out adjustments or corrections according to specified procedures, and within scope of own role<br>3.3 Verify repairs and adjustments as required prior to resumption of operations                                                                                                                                                                                                                                                                                                              |
| 4. Conduct shutdown of production process  | 4.1 Follow shutdown sequence according to manufacturer specifications and enterprise procedures<br>4.2 Label and store unused ink according to manufacturer specifications and enterprise procedures<br>4.3 Remove solid and liquid waste from operating area and recycle and dispose of, as required, according to regulatory requirements and enterprise procedures<br>4.4 Clean and disengage all required parts of machinery used in printing process according to manufacturer specifications and enterprise procedures<br>4.5 Complete required production records and enterprise documentation |

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

| Skill           | Description                                                                                                                                            |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Writing         | <ul style="list-style-type: none"><li>Enters routine data associated with production processes and enterprise procedures</li></ul>                     |
| Numeracy        | <ul style="list-style-type: none"><li>Interprets and analyses a range of mathematical information used in familiar and routine tasks</li></ul>         |
| Self-management | <ul style="list-style-type: none"><li>Identifies and follows explicit and implicit protocols and meets expectations associated with own role</li></ul> |

|                   |                                                                                                                                                                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <ul style="list-style-type: none"><li>Identifies and follows all procedures for cleaning and maintenance of equipment, incorporating regulatory requirements and enterprise procedures</li></ul>                                                                                              |
| Teamwork          | <ul style="list-style-type: none"><li>Cooperates with others as part of familiar routine activities, and contributes to specific activities requiring joint responsibility and accountability</li><li>Identifies what to communicate, with whom and how, in routine work situations</li></ul> |
| Get the work done | <ul style="list-style-type: none"><li>Takes responsibility for planning and organising own workload, identifying ways of sequencing and combining elements for greater efficiency</li><li>Plans, identifies and assembles resources required to complete tasks</li></ul>                      |
| Problem solving   | <ul style="list-style-type: none"><li>Responds to problems and applies formal problem solving processes when tackling unfamiliar problems</li></ul>                                                                                                                                           |
| Technology        | <ul style="list-style-type: none"><li>Follows routine procedures for using digital technology by reading data from electronic monitoring and control systems</li></ul>                                                                                                                        |

## Unit Mapping Information

Supersedes and is equivalent to ICPPRN342 Produce complex pad printed product.

## Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a74b7a0f-a253-47e3-8be0-5d426e24131d>

# Assessment Requirements for ICPPRN3420 Produce complex pad printed product

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## Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- operate a pad printing machine and produce two different jobs.

In the course of the above the candidate must:

- operate production process in association with fellow workers and according to enterprise procedures and planned daily schedule
- follow work health and safety (WHS) requirements, manufacturer specifications and enterprise procedures
- anticipate production difficulties and take preventive action to prevent occurrence.
- demonstrate use of control, monitoring and data entry systems.

## Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- WHS risks and requirements for:
  - setting up and operating the pad printing machine
  - handling inks and other materials
  - machine shutdown
  - cleaning and waste disposal
- material safety data sheets (MSDS), their location and what information they contain
- selection criteria for machine cycle modes to improve colour density of a light image on a dark substrate
- product quality requirements and control and correction methods
- special cycle modes available on the machine and their application
- indicators that an ink has been mixed to the required viscosity and correction methods
- causes of unreleased ink remaining on the printing pad and identifying criteria
- effect of a catalyst on the pot life of ink, and other factors affecting pot life

- signs of a damaged pad
- required cleaning method for a pad during production
- effect of different pad shapes in multi-coloured printing for different colours
- steps taken to determine time the ink requires to cure before scratch and adhesion tests can be performed
- check for pre-treatment of polypropylene during production
- procedure for ensuring required drying conditions for the product
- visible effects of incorrect ink viscosity on the image
- steps taken to identify the cause of incorrect registration and avoid it
- regulatory requirements for recycling procedures
- manufacturer manuals, enterprise procedures and work health and safety documentation, including their location and purpose.

## Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the printing field of work and include access to:

- special purpose tools, equipment and materials
- pad printing machine.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

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