



Australian Government

ICPPRN342 Produce complex pad printed product

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 1.0.

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 Location of objects into fixtures is monitored and adjusted if necessary 1.2 Printing plates condition is monitored to ensure quality of printed product meets the approved proof standard 1.3 Printing pads condition is monitored and maintained to ensure quality of printed product meets the approved proof standard 1.4 Spatulas and doctor blades are monitored and adjusted to ensure quality of printed product meets the approved proof standard OR

ELEMENT	PERFORMANCE CRITERIA
	1.5 Ink cups are monitored and adjusted to ensure quality of printed product meets the approved proof standard 1.6 Printing ink viscosity is monitored and adjusted to ensure quality of printed product meets the approved proof standard
2. Maintain in-line systems	2.1 In-line loading is monitored and adjusted to ensure quality of printed product meets the approved proof standard 2.2 In-line pre-treatment is monitored and adjusted to ensure quality of printed product meets the approved proof standard 2.3 In-line drying is monitored and adjusted to ensure quality of printed product meets the approved proof standard 2.4 In-line ejection is monitored and adjusted to ensure quality of printed product meets the approved proof standard
3. Maintain non-routine production process	3.1 Production process is operated in association with fellow workers and according to company specifications and planned daily schedule 3.2 Production is maintained within work health and safety (WHS) requirements and company and manufacturer's specifications 3.3 Manual and/or automatic control is used as per specification 3.4 Performance is monitored and verified using the process control system according to enterprise procedures 3.5 Ink performance, colour, register and position of print are monitored and adjusted throughout production run 3.6 Production difficulties are anticipated and preventive action is taken to prevent occurrence by timely intervention 3.7 Process adjustments to eliminate problems are reported according to enterprise procedures 3.8 Waste is sorted according to enterprise procedures
4. Identify and rectify faults	4.1 Problems in pad printing machine operation are identified and reported according to enterprise procedures 4.2 Adjustments or corrections are carried out according to specified procedures and consistent with operator's skill level 4.3 Pad printing machine operation is checked to ensure correct operation 4.4 Faulty performance of equipment is identified and reported according to enterprise procedures
5. Conduct shutdown of	5.1 Correct shutdown sequence is followed according to

ELEMENT	PERFORMANCE CRITERIA
production process	manufacturer's specifications and enterprise procedures 5.2 Shutdown is conducted in association with fellow workers and in compliance with WHS requirements 5.3 Unused ink is correctly labelled and stored according to manufacturer/supplier specifications and enterprise procedures 5.4 Solid and liquid waste is removed from operating area and recycled or disposed of, where required, according to regulatory requirements and enterprise procedures 5.5 All product is removed from operating area 5.6 Machine faults requiring repair are identified and reported to designated person according to enterprise procedures 5.7 Repair/adjustment is verified prior to resumption of operations
6. Clean and wash up printing machine at end of print run	6.1 Plates and pads are cleaned ready for next run 6.2 Inking system is washed up ready for next run, and liquid waste is disposed of according to company and regulatory requirements 6.3 Pre- and post-treatment units are cleaned ready for next run 6.4 Production records or other documentation are accurately completed where required by enterprise procedures

Foundation Skills

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

Skill	Performance Criteria	Description
Reading	3.1-3.3, 5.1, 5.3	Recognises and interprets text to establish job requirements from information contained within relevant procedures and specifications
Writing	3.7, 4.1, 4.4, 5.3, 5.6, 6.4	Enters routine data associated with production processes and enterprise procedures
Oral Communication	3.1-3.3, 3.7, 4.1, 4.4, 5.1-5.3, 5.6	Speaks clearly using appropriate vocabulary, tone and pace to report faults and discrepancies
Numeracy	3.5	Interprets and analyses a range of mathematical information used in familiar and routine tasks

Navigate the world of work	1.1-1.6, 2.1-2.4, 3.1-3.4, 3.7, 3.8, 4.1-4.4, 5.1-5.4, 5.6, 6.1, 6.3, 6.4	- Recognises and follows explicit and implicit protocols and meets expectations associated with own role - Recognises and follows all procedures for cleaning and maintenance of equipment, incorporating regulatory requirements and enterprise procedures
Interact with others	3.1-3.3, 3.7, 4.1, 4.4, 5.1-5.3, 5.6	- Cooperates with others as part of familiar routine activities, and contributes to specific activities requiring joint responsibility and accountability - Understands what to communicate, with whom and how, in routine work situations
Get the work done	1.1-1.6, 2.1-2.4, 3.1-3.8, 4.1-4.4, 5.1-5.7, 6.1, 6.3	- Takes responsibility for planning and organising own workload, identifying ways of sequencing and combining elements for greater efficiency - Plans, identifies and assembles resources required to complete tasks - Responds to problems and applies formal problem solving processes when tackling unfamiliar problems - Follows routine procedures for using digital technology by reading data from electronic monitoring and control systems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPPRN342 Produce complex pad printed product	ICPPR342C Produce complex pad printed product	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICPPRN342 Produce complex pad printed product

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Performance Evidence

Evidence of the ability to:

- operate a pad printing machine and produce TWO jobs (if possible on different substrates) ensuring an efficient non-routine production flow that maintains product quality standards in accordance with job specifications and enterprise procedures
- safely shut down and clean a pad printing machine according to work health and safety (WHS) guidelines
- demonstrate use of control, monitoring and data entry systems

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain the major WHS concerns when operating the pad printing machine
- identify where Material Safety Data Sheets (MSDS) are stored and what information they contain
- explain how colour density of a light image on a dark substrate can be improved by selecting a different machine cycle mode
- describe special cycle modes available on the machine and their application
- explain how to determine if an ink has been mixed to the correct viscosity
- describe how to correct ink viscosity during production
- explain causes of unreleased ink remaining on the printing pad and how to identify them
- discuss how adding a catalyst affects the pot life of ink, and list other factors affecting pot life
- describe how to recognise a damaged pad
- outline the correct method of cleaning a pad during production
- discuss the effect of different pad shapes in multi-coloured printing for different colours

- explain how to determine time the ink should take to cure before scratch and adhesion tests can be performed
- outline how to check for correct pre-treatment of polypropylene during production
- describe how to ensure drying conditions are correct for the product
- describe visible effects on the image if ink viscosity is incorrect
- describe how to identify the cause of incorrect registration and prevent its recurrence
- explain what causes a fine coating of ink over the whole cliché surface
- identify machine manuals, safety and other documentation relevant to this task, where are they kept and the information contained.

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 must satisfy NVR/AQTF assessor requirements.

Links

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