



Australian Government

ICPSUP311 Prepare ink and additives (advanced)

Release: 1

ICPSUP311 Prepare ink and additives (advanced)

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 prepare inks and additives for special colour work or other special purpose inks.

It applies to individuals who perform a range of defined tasks relating to the printing and screen printing industry, and who may also provide some leadership and guidance to others with some limited responsibility for the output of others.

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

Pre-requisite Unit

ICPSUP211	Prepare ink and additives
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Unit Sector

Support

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. Select ink for special colour work or other specialised purpose	1.1 Inks and additives are selected according to job specifications 1.2 Quality and suitability of inks or additives are checked and appropriate action is taken to meet quality standards of client requirements and enterprise and industry standards 1.3 Inks are selected according to end-use of product, suitability of

ELEMENT	PERFORMANCE CRITERIA
	substrate, adhesion, physical and chemical resistance, light fastness, drying method and print process
2. Maintain and calibrate equipment	2.1 Equipment is inspected to ensure it is functional, and where necessary appropriate remedial action is taken prior to commencement 2.2 Equipment is calibrated, cleaned and adjusted according to manufacturer's/supplier's instructions
3. Prepare ink for special colour work or other specialised purpose	3.1 Inks and additives are prepared according to work health and safety (WHS) requirements and manufacturer's/supplier's instructions with suitable precautions to minimise waste 3.2 Correct colour and weight/volume of ink are calculated, mixed and prepared to match requirements of the job specification and the printing machine to be used 3.3 Formulation of ink and approved colour is appropriately recorded
4. Store and handle ink	4.1 Inks and additives are appropriately stored, handled and labelled according to manufacturer's/supplier's instructions to prevent damage and hazards to personnel

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	1.1, 1.2, 2.2, 3.1, 3.2, 4.1	Recognises and interprets textual information to establish job requirements from relevant information
Writing	3.3, 4.1	Uses clear, specific and industry-related terminology to complete and update workplace documentation
Numeracy	2.2, 3.1-3.3	Uses basic mathematical formula to calculate whole numbers and decimals to determine supplies quantities
Navigate the world of work	1.2, 3.1, 4.1	Recognises and follows organisational and legislative requirements associated with own role
Get the work	1.1-1.3, 2.1, 2.2, 3.1,	Takes responsibility for planning and organising own workload, identifying ways of sequencing and combining

done	4.1	elements for greater efficiency • Initiates standard procedures when responding to familiar problems within immediate context • Understands purposes, specific functions and key features of common digital systems and tools and operates them effectively to complete routine tasks
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPSUP311 Prepare ink and additives (advanced)	ICPSU311C Prepare ink and additives (advanced)	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 ICPSUP311 Prepare ink and additives (advanced)

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Performance Evidence

Evidence of the ability to:

- prepare at least TWO different lots of ink and additives that require special colour matching and match colour sample by manual and electronic means
- select suitable ink types for different substrates
- meet client requirements, job specifications, enterprise and industry standards when selecting, preparing, storing and handling ink or additives, and using equipment.

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:

- identify manuals, safety and other documentation needed for this task and briefly outline the relevant information in each source

WHS requirements

- outline work health and safety (WHS) requirements for operating machinery or equipment
- identify health hazards of using inks, solvents and additives
- list pollution and environmental issues to be considered when working with inks and additives
- summarise the enterprise procedures for working safely

Ink/additives and test substrate compatibility

- describe substrate characteristics and the end use of the substrate
- explain why ink colour fastness needs to be determined and considered
- explain how to determine whether ink will adhere to the substrate
- explain how to test compatibility of solvents, monomers and additives with ink

Ink quantity and match sample by hand/computer

- explain the formula for calculating the correct quantity of ink
- outline details required to calculate ink quantity
- list any computer-based packages used to calculate ink quantity

Ink and check consistency and colour

- explain the effect of ink coverage on screen mesh, machine and squeegee
- describe the software program(s) used for matching colours and required inputs
- describe ideal conditions for matching colours
- explain the effect white mixed in colour has on finished colour light fastness
- describe methods for checking and adjusting ink colour and consistency
- list machine characteristics and other parameters that affect ink deposit and consequently colour
- describe effects of viscosity changes in ink

Ink type and record information

- explain procedures for recording formulation, by hand or by computer
- identify who approves the mixed colour prior to commencing production
- identify the process for recording the recipe for the colour

Storage, handling and labelling

- explain systems for labelling mixed inks
- describe environmental conditions in place for ink storage
- explain where to find manufacturer's specifications and MSDSs.

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 Support field of work and include access to inks and additives.

Assessors must satisfy NVR/AQTF assessor requirements.

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