

Title	Demonstrate knowledge of colour and ink requirements for pad printing		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of: colour theory and colour terms; inks and additives for pad printing; and ink drying systems and equipment used in pad printing.
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Classification	Printing > Pad Printing
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Available grade	Achieved
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Guidance Information

None.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of colour theory and colour terms.

Performance criteria

- 1.1 Explain colour theory in terms of additive colours (red, green, and blue light).
- 1.2 Explain colour theory in terms of subtractive colours (cyan, magenta, and yellow pigments).
- 1.3 Explain the relationship between additive and subtractive colours.
- 1.4 Use colour terms relevant to pad printing accurately.

Range	may include but is not limited to – chromatic, achromatic, mono chromatic, poly chromatic, colour, primary colours, secondary colours, tertiary colours, analogous colours, complementary colours, additive colours, subtractive colours, light fast, temperature, perspective, hue, brightness, value, purity, chroma, intensity saturation.
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- 1.5 Explain correct viewing conditions in terms of their importance to colour matching.

Outcome 2

Demonstrate knowledge of inks and additives for pad printing.

Performance criteria

2.1 Describe the characteristics of different types of pad printing inks.

Range may include but is not limited to – solvent evaporating, oxidation curing, reactive (ie catalyst curing, two component), baking, ultraviolet (UV) curable, thermoplastic (ceramic, glass).

2.2 Describe the uses of additives in pad printing.

Range may include but is not limited to – adhesion modifiers, antistatic agents, catalysts (hardeners), flow agents, matt and gloss agents, retarders, thinners.

Outcome 3

Demonstrate knowledge of ink drying systems and ink drying equipment used in pad printing.

Performance criteria

3.1 Describe ink drying systems in terms of their functions.

Range may include but are not limited to – evaporation, oxidation, thermosetting, catalytic, radiation curing.

3.2 Identify ink drying equipment and describe its uses in pad printing.

Range may include but are not limited to – rack, wicket, jet air, drying tunnel, UV, infra-red (IR).

3.3 Describe factors affecting the ink drying process for pad printing.

Range may include but are not limited to – ink substrate, speed of printing, air temperature, humidity, light, radiation intensity.

Planned review date	31 December 2027
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	18 July 2008	31 December 2025
Revision	2	12 December 2008	31 December 2027
Review	3	30 March 2023	N/A
Revision	4	27 February 2025	N/A

Consent and Moderation Requirements (CMR) reference

0013

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.