

Title	Demonstrate knowledge of plastics materials joining techniques		
Level	2	Credits	6

Purpose	People credited with this unit standard are able to demonstrate knowledge of plastics materials joining techniques.
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Classification	Plastics Processing Technology > Plastics Fabrication
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Available grade	Achieved
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Guidance Information

1. Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to:
Health and Safety at Work Act 2015; and any subsequent amendments and replacements.

2. The following joining techniques apply to this unit standard:

Welding techniques refer to the following techniques:
hot-air and hot-gas, extrusion, butt, socket, electro-fusion, friction (including ultrasonic), high frequency, heat (including impulse), laser.

Adhesion refers to techniques using:
solvents, adhesives.

Mechanical refers to techniques using:
metal and plastic fastenings (including bolts, rivets, screws, spring fasteners), snap joints, crimped joints, press fitted joints, compression seals.

3. Definition
Plastics materials are thermoplastics (including elastomers) and thermosetting materials.
4. Assessment information
Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with legislative requirements and workplace procedures and meet accepted industry practice.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of plastics materials joining techniques.

Performance criteria

1.1 Types of plastics materials welding joints are identified.

Range plastics welding joints – butt, overlap, fillet.

1.2 The principles of plastics materials joining techniques are described, and common examples of the equipment, tooling, and joining materials used for each technique are identified.

Range evidence is required for three welding techniques, one adhesion technique, and two mechanical techniques.

1.3 Common plastics materials joined by joining techniques are identified.

Range plastics materials joining techniques include – welding, adhesion, mechanical;
evidence is required of three joining techniques, two of which must be mechanical.

1.4 Common rigid or flexible end-use applications which use plastics materials joining techniques are identified.

Range plastics materials joining techniques include – welding, adhesion, mechanical;
evidence is required of three joining techniques, two of which must be mechanical.

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	26 April 2005	31 December 2025
Rollover and Revision	2	18 March 2011	31 December 2025
Review	3	26 October 2023	N/A

Consent and Moderation Requirements (CMR) reference	0013
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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@hangaararau.nz if you wish to suggest changes to the content of this unit standard.