

Title	Demonstrate knowledge of safety in the handling of roadmarking long-life products		
Level	3	Credits	20

Purpose	People credited with this unit standard are able to: demonstrate knowledge of long-life products used in road marking; demonstrate knowledge of general safety precautions for handling long-life products; describe safety precautions for maintenance work on thermoplastic equipment; describe the prevention and control of thermoplastic fires; and describe emergency procedures for thermoplastic burns.
----------------	---

Classification	Infrastructure Works > Roadmarking
-----------------------	------------------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with relevant industry requirements.
- 2 Legislation and standards relevant to this unit standard include:
Employment Relations Act 2000;
Health and Safety at Work Act 2015;
Health and Safety in Employment Regulations 1995;
Accident Compensation Act 2001;
Resource Management Act 1991;
Traffic Regulations 1976;
all available at www.legislation.govt.nz/.
- 3 The requirements within the following codes of practice and guidelines applying to roadmarking operations must be complied with as appropriate for the context of assessment against this unit standard:
Codes of practice and checklists published by the New Zealand Roadmarkers Federation, available at www.nzrf.co.nz/technical-documents/.
New Zealand Transport Agency's principal external manuals, manual amendments, specific examples include: Code of Practice for Temporary Traffic Management (COPTTM), available at <https://www.nzta.govt.nz/copttm>.

Approved codes of practice and guidelines relevant to specific work activities, an example includes: Approved Code of Practice for the Management of Substances Hazardous to Health (MOSHH), available from Worksafe New Zealand at <https://www.worksafe.govt.nz/topic-and-industry/hazardous-substances/guidance/hazardous-substances-cop/>.

Best Practice Guideline: Safe Handling of Bituminous Materials used for Roding (BPG01), available at <https://civilcontractors.co.nz/>.

- 4 This unit standard does not involve entering a confined space nor does achievement of it fulfil the obligations for training for working in a confined space as required under the Health and Safety at Work Act 2015. For this refer to unit standard 18426, *Demonstrate knowledge of hazards associated with confined spaces*, and AS/NZS 2865:2001 *Safe working in a confined space*, available from Standards New Zealand. Achievement of outcome 3 is not a substitute for the special training required for entering tanks.
- 5 This unit standard may be assessed in a workplace or a provider environment.
- 6 **Definitions**
Company requirements include the policy, procedures, and methodologies of the company. They include requirements in company and site health, safety and environmental plans, quality assurance documents, job plans, and contract work and reporting documents.
Hot work refers to work involving flames or equipment that may provide a source of ignition to any flammable vapours present.
LPG refers to liquid petroleum gas.
Material supplier instructions may include specifications, storage, installation, handling, instructions for use and Safety Data Sheets (SDS).

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of long-life products used in road marking.

Performance criteria

- 1.1 The properties of long-life products are described in accordance with SDS.
- | | |
|-------|---|
| Range | includes but is not limited to – melting point, specific density, interaction with water, maximum safe application temperature. |
|-------|---|
- 1.2 Long-life products are described in terms of their types.
- | | |
|-------|--|
| Range | may include but is not limited to – thermoplastics, cold applied, and any other approved products. |
|-------|--|
- 1.3 Methods of achieving fluidity of thermoplastic are described in accordance with material supplier instructions.

1.4 Thermoplastics and heating media are described in terms of flammability.

Range diesel, LPG, thermoplastic.

Outcome 2

Demonstrate knowledge of general safety precautions for handling long-life products.

Performance criteria

2.1 The dangers of handling long-life products are described in accordance with company requirements.

Range includes but is not limited to – transfer of material, splashes, burns, moisture, LPG, spillage, entrapment, toxicity.

2.2 Equipment and procedures for personal protection when handling long-life products are identified and described in accordance with company requirements.

Range includes but not limited to – clothing, cleaning.

2.3 The protection of people and property, the assisting of emergency services, and the display of appropriate warning labels are described in accordance with company requirements.

Outcome 3

Describe safety precautions for maintenance work on thermoplastic equipment.

Range equipment – heating vessels, pipework, transfer equipment.

Performance criteria

3.1 Safety precautions for maintaining tanks and pipework are described in accordance with company requirements.

3.2 Safety precautions for hot work are described in accordance with *Best Practice Guideline: Safe Handling of Bituminous Materials used for Roading*, and company requirements.

Outcome 4

Describe the prevention and control of thermoplastic fires.

Performance criteria

4.1 The prevention of thermoplastic fires is described in terms of regulatory requirements, and company requirements.

Range safe temperature, flammable materials, ignition sources.

4.2 The control of thermoplastic fires is described in terms of company requirements.

Range equipment required, extinguishant, location of equipment, emergency procedures.

Outcome 5

Describe emergency procedures for thermoplastic burns.

Performance criteria

- 5.1 The location of first aid equipment and items required for burns are described in accordance with company requirements.
- 5.2 Front-line first aid procedures for personal injury resulting from thermoplastic burns are described in accordance with *Best Practice Guideline: Safe Handling of Bituminous Materials used for Roading*, and company requirements.
- 5.3 The first aid procedures for personal injury resulting from inhalation and ingestion of toxic substances are described in accordance with SDS and company requirements.

Planned review date	31 December 2028
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	13 February 2001	31 December 2016
Review	2	22 September 2005	31 December 2016
Revision	3	23 February 2007	31 December 2018
Review	4	20 April 2017	31 December 2025
Review	5	29 June 2023	N/A

Consent and Moderation Requirements (CMR) reference	0101
--	------

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

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.