

<b>Title</b>	<b>Demonstrate knowledge of the process and procedures for asphalt product manufacturing</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of the process and procedures for asphalt product manufacturing.
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<b>Classification</b>	Infrastructure Works > Bituminous Product Manufacturing
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<b>Available grade</b>	Achieved
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## Guidance Information

- 1 Learning and assessment for this unit standard must be in accordance with the following:
  - Health and Safety at Work Act 2015;
  - Health and Safety at Work (Hazardous Substances) Regulations 2017;
  - Notices for hazardous substances 2017 – Environmental Protection Authority (EPA);
  - Resource Management Act 1991;
  - Best Practice Guideline: Safe Handling of Bituminous Materials Used for Roothing (BPG01);
  - The Bitumen Safety Handbook; Civil Contractors New Zealand (CCNZ);
  - Workplace Traffic Management (Worksafe);
  - Specification for Performance-Graded Asphalt Binder, NZTA MO1-A:2019;
  - and all subsequent amendments and replacements.

- 2 Definitions

*Company requirements* include the policy, procedures, and methodologies of the company. They include legislative and regulatory requirements applicable to the company or to a specific site. Requirements are documented in the company's health and safety plans, environmental plans, traffic management plans, contract work programmes, quality assurance programmes, policies, and procedural documents.

*Original equipment manufacturer (OEM)* refers to a company that produces parts and equipment that may be marketed by another manufacturer. It can also refer to the maker of a system that includes other companies' subsystems or an end-product producer.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of the process and procedures for asphalt product manufacturing.

**Performance criteria**

- 1.1 The process for asphalt product manufacturing plant is explained in terms of the components and safe practices in accordance with industry standards, OEM and company requirements.  
  
Range process and components may include but are not limited to – metering systems and equipment, binder storage and heating, temperature management, bins, stockpiles, pressure gauges, feeders, mixing, drying, dust extraction, storage, additives, weighing, calibrating, control panel, sampling, testing, transfer, delivery.
- 1.2 Calibration procedures are explained in accordance with company requirements, OEM and customer requirements.  
  
Range calibration procedures may include but are not limited to – weigh feeder load cells, moisture content measuring system, bitumen pumping system, temperature measuring systems, data recorders.
- 1.3 Mixing processes are explained in terms of capacity, material flow, requirements for adding optional inputs, mix times, and regulating inputs and outputs.
- 1.4 Procedures and safe practices for emergency response are explained in accordance with company requirements.
- 1.5 Procedures for the storage of raw material and manufactured product is explained in terms of systems for aggregates, binders, and mix products, and adjustments required for maintaining product quality.  
  
Range aggregate storage – hot bin, cold bin, stockpile; binder storage – short-term, long-term, stirrers, temperature, containers, feeders; systems – sampling, testing, recording.
- 1.6 Load-out processes are explained in terms of conveying, batching, and truck loading.  
  
Range processes – coordinating despatches, weighing, weighbridge, loader weigh cells, certified flow meter, data monitoring.

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<b>Planned review date</b>	31 December 2025
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	26 November 2020	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0101
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

Please contact Connexis - Infrastructure Industry Training Organisation  
[qualifications@connexis.org.nz](mailto:qualifications@connexis.org.nz) if you wish to suggest changes to the content of this unit standard.