

Title	Use paint curing equipment for vehicles with an alternative energy supply system in a refinishing workshop		
Level	5	Credits	12

Purpose	This unit standard is for people who work in the automotive refinishing industry. People credited with this unit standard are able to: demonstrate knowledge of vehicle alternative energy supply systems for automotive paint refinishing; prepare vehicles with alternative energy supply systems for automotive paint refinishing; and use paint curing and baking equipment for vehicles with alternative energy supply systems in an automotive refinishing workshop.
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Classification	Motor Industry > Vehicle Bodywork
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Available grade	Achieved
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Guidance Information

1 Legislation and references

Performance of the outcome of this unit standard must comply with the following:
 Hazardous Substances and New Organisms Act 1996;
 Health and Safety at Work Act 2015;
 Spray Coating Regulations 1962.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

2 Definitions

Service information may include but is not limited to – technical information of a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions and specifications; technical terms and descriptions; and detailed illustrations. This may be accessed from the manufacturer.

Technical Data Sheets (TDS) – information produced by paint manufacturers that contain optimal baking requirements and vehicle maker service information for temperature and time restrictions.

Workplace procedures refer to organisation policies and procedures that are documented in memo, electronic, or manual format and available in the workplace, and are consistent with manufacturer's requirements. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the industry sector.

3 Assessment

Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's specifications, service information, workplace procedures and legislative requirements.

Vehicles with alternative energy supply systems include battery powered vehicles, hybrid vehicles, hydrogen vehicles.

Evidence of three vehicles is required. The vehicles may all have the same alternative energy system or may be different systems.

4 Recommended skills and knowledge

Unit 24011, *Use paint curing equipment in an automotive refinishing workshop*, or demonstrate equivalent knowledge and skills.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of vehicle alternative energy supply systems for automotive paint refinishing.

Performance criteria

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| 1.1 | Temperature warnings for vehicle alternative energy supply systems are explained. |
| Range | may include but is not limited to – temperature verses time, forced dry times, metal or object temperature. |
| 1.2 | Scheduling of automotive paint refinishing for vehicles with an alternative energy supply system is explained. |
| Range | may include but is not limited to – temperature, methods of drying, alternative paint types, solvent types, mixing ratio. |

- 1.3 Factors that impact the refinishing application for vehicles with an alternative energy supply system are explained.

Range may include but is not limited to – force dry temperatures and their measurement, ambient temperature, sufficient airflow, panel or metal temperature, temperature verses time.

- 1.4 Storage of vehicles with alternative energy supply systems in the workplace is explained.

Range includes – storage and location of vehicles within workshop, ambient temperature range, procedure for evacuating a vehicle.

- 1.5 Temperature and bake cycle for bake oven is explained.

- 1.6 Paint drying times when using a drying system are identified and explained.

Range at least one of – ultraviolet, infrared, or gas infrared.

Outcome 2

Prepare vehicles with alternative energy supply systems for automotive paint refinishing.

Performance criteria

- 2.1 Research sources for optimal automotive paint baking specifications.

Range sources may include but are not limited to – paint maker TDS, vehicle manufacturer's repair information, service information, company requirements.

- 2.2 Vehicle energy supply system is confirmed as isolated.

- 2.3 Spray booth controls are identified and set for correct booth operation to meet the paint curing and/or baking requirements.

Outcome 3

Use paint curing and baking equipment for vehicles with alternative energy supply systems in an automotive refinishing workshop.

Performance criteria

- 3.1 Temperature and bake cycle for bake oven is set, and the paintwork is baked, ensuring there is no damage to vehicle components.

Range includes but is not limited to – alternative vehicle energy supply system, computers, plastic fittings, interior, exterior trim, supplementary restraint system.

- 3.2 Paintwork is dried ensuring there is no damage to paintwork, components, or fittings.

Range includes but is not limited to – alternative vehicle energy supply system, computers, plastic fittings, interior, exterior trim, supplementary restraint system.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 September 2023	N/A

Consent and Moderation Requirements (CMR) reference	0014
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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@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.