

40277 Polish concrete floor surfaces

Kaupae Level	4
Whiwhinga Credit	40
Whāinga Purpose	<p>This skill standard recognises the skills required to prepare for and carry out concrete polishing of floor surfaces to meet clients' finish requirements.</p> <p>This skill standard aligns with the New Zealand Certificate in Flooring Surface Preparation (Level 4) [Ref: 4299].</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Assess work surfaces and worksite to inform a concrete polishing work schedule.	a. The assessed concrete floor surface is confirmed as suitable for planned polishing.
	b. The site is assessed for hazard management, accessibility, and readiness for concrete polishing work.
	c. Products, tools, plant, and equipment are selected to meet job requirements.
2. Prepare the worksite for concrete floor surface polishing.	a. Adjacent surfaces are protected from dust and damage from concrete polishing operations.
	b. Cracks and expansion cuts are cleaned and repaired in preparation for concrete floor polishing.
	c. Metal bond tools are used to expose aggregate and apply liquid grouting for the planned concrete floor polishing.
	d. Concrete cure is applied to densify and harden concrete ready for concrete floor polishing.
	e. Preparation requirements are completed to meet job requirements for concrete floor polishing.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
3. Perform concrete polishing of floor surfaces.	a. Resin bond diamond tools are used to polish concrete floors to meet job requirements.
	b. Dust control and dust removal practices are used according to industry standards.
	c. Concrete is polished to achieve the required sheen and exposure surface profile to meet job requirements.
	d. Edges are finished and penetrating stain protection product is applied to meet job requirements.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Candidates must be capable of consistently polishing concrete floor surfaces by transitioning from grinding to polishing using resin bond diamond tools to remove scratches, excess concrete cure, and liquid grout to achieve the standard expected of commercial competence.

Commercial competence refers to:

- performing the skill in a safe manner
- performing the skill to required industry standards
- performing the skill within a commercially viable timeframe
- repeating the skill on demand
- performing the skill without supervision
- applying the skill to other work.

Industry standards must reflect flooring industry best practice, workplace procedures, and be within acceptable tolerances as defined in New Zealand.

Assessment evidence must reflect the completion of concrete polishing according to manufacturers' specifications.

Performance must conform to CSDA-ST-115 Standards, slippage standards appropriate to the flooring purpose, and be appropriate to the intended topical or penetrating coating. Performance must also comply with the Building Regulations 1992 Clause E3 – Internal Moisture, to achieve a surface that is impervious and easily cleaned.

Assessment must conform to workplace conditions and meet workplace health and safety requirements.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

Assessment of site

- Assessment of concrete substrate for suitability, including hardness.
- Hazard analysis and management.
- Site accessibility requirements.
- Job documentation and finishing requirements.
- Products, tools, plant, and equipment.
- Communicating requirements with concrete placers.
- Concrete placing requirements – level, fall, thickness, structural support, moisture content, surface finish, stability, cleanliness.

Preparation

- Selecting appropriate products for the environment and application.
- Interpreting appropriate product data sheets.
- Protection of adjacent surfaces.
- Cleaning and repairing cracks and expansion joints.
- Exposing aggregate and liquid grouting.
- Concrete curing and chemical densifying methods.
- Properties of different concrete and the impact on the polishing process.
- Concrete properties, common issues with concrete and remedies.

Polishing

- Dust control, tools, plant, and equipment
- Grinding and polishing methods and edge finishing.
- Removal of scratches, excess concrete cure and liquid grout.
- Application of lick coats of chemical densifier during the polishing process.
- Penetrating stain protection products.
- Bush hammering and burnishing methods.
- Protection of polished concrete from damage.
- Care and maintenance.
- Safe handling and disposal of products.

Rauemi | Resources

Flooring Programme Guidance available from qualifications@waihangaararau.nz.

International Standard

CSDA-ST-115. (2013). *Measuring Concrete Micro Surface Texture*. available from <http://www.universalpolishingsystems.com/wp-content/uploads/2018/11/CSDA-ST-115-Specification.pdf>.

Regulations

- Building Regulations 1992 available from <https://www.legislation.govt.nz/regulation/public/1992/0150/latest/whole.html#DLM164922>.

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Waihanga Ara Rau Construction and Infrastructure Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Planning and Construction > Construction Trades > Flooring
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0048

Hātepe Process	Putanga Version	Rā whakaputa Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	28 November 2024	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2029		

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