

Title	Describe the properties, uses and technical requirements of structural silicone for glazing installations		
Level	4	Credits	5

Purpose	<p>A person credited with this standard can for glazing installations:</p> <ul style="list-style-type: none"> • describe the properties and uses of structural silicone; and • describe the technical requirements for structural silicone.
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Classification	Construction Trades > Glazing
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Available grade	Achieved
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Guidance Information

- 1 Assessment
Evidence generated for assessment against this standard must be verified by a person who has current expertise in the use of structural silicone for glazing installation.
- 2 Evidence generated for assessment against this standard must reflect best practice guidelines and principles specified in:
 - NZS 4223.1:2008. *Glazing in buildings – Part 1: Code of practice for glazing in buildings – Glass selection and glazing*;
 - NZS 4223.2:2016. *Glazing in buildings – Part 2: Insulating glass units*;
 - NZS 4223.3:2016. *Glazing in buildings – Part 3: Human impact safety requirements*;
 - NZS 4223.4:2008. *Glazing in buildings – Part 4: Wind, dead, snow, and live actions*.

AS/NZS and NZS standards are available at <http://www.standards.govt.nz/>.

Outcomes and performance criteria

Outcome 1

Describe the properties and uses of structural silicone for glazing installations.

Performance criteria

- 1.1 Describe the properties of structural silicone.

Range	adhesion, flexibility, weather resistance, temperature tolerance, chemical resistance, load bearing.
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1.2 Describe the uses of structural silicone.

Range curtain wall, skylights, glass facades, shop frontage.

1.3 Describe the benefits of structural silicone.

Range aesthetic, safety and application.

Outcome 2

Describe technical requirements for structural silicone glazing installations.

Performance criteria

2.1 Describe the requirements for substrate preparation and sealant substrate compatibility.

2.2 Describe testing requirements for glass or cladding and substrate compatibility.

2.3 Describe the parameters for joint design.

Range bite size, glue line thickness, joint configuration.

2.4 Explain the cleaning products and preparation process according to technical requirements of glazing application.

Range preparation processes include – removal of oil, grease, and soluble salts; removal of traces of cleaning agents; protection of surfaces from contamination.

2.5 Describe the properties and functions of a range of primer applications used in structural silicone glazing installations.

2.6 Describe methods used for sealant application for glazing with structural silicone.

Range on-site system, in-factory system.

2.7 Describe the timing and method of testing during structural silicone glazing.

Range testing for – weatherproofing, adhesion failure.

Planned review date	31 December 2029
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 November 2024	N/A

Consent and Moderation Requirements (CMR) reference	0048
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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 Waihangara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihangaraarau.nz if you wish to suggest changes to the content of this unit standard.