### Industry Standards

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<td>ACI 117-2010</td>
<td>Standard Specifications for Tolerances for Concrete Construction and Materials</td>
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<td>ASTM E 380</td>
<td>Standard Practice for the Use of the International System of Units (SI); The Modernized Metric System.</td>
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<td>ASTM E 621-94 (1999)e1</td>
<td>Standard Practice for the Use of Metric (SI) Units in Building Design and Construction</td>
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<td>ASTM PS 83-97/F 1951</td>
<td>Standard on Playground Surface Accessibility</td>
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<td>ASTM WK 3539</td>
<td>(Work item) Practice for Reporting Uncertainty of Test Results and Use of the Term Measurement Uncertainty in ASTM Test Methods</td>
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<td>SI units and recommendations for the use of their multiples and of certain other units</td>
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<tr>
<td>ISO 1803:1997</td>
<td>Building construction—Tolerances—Expression of dimensional accuracy—Principles and terminology</td>
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<td>ISO 2631-1:1997</td>
<td>Mechanical vibration and shock—Evaluation of human exposure to whole-body vibration—Part 1: General requirements</td>
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<td>ISO 2631-2:2003</td>
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<td>ISO 4463</td>
<td>Measurement methods for buildings—setting out and measurement—permissible measuring deviations</td>
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<td>ISO 4464</td>
<td>Tolerances for buildings—Relationship between the different types of deviations and tolerances used for specifications</td>
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Other international standards:

Australian NATSPEC Building Works, Concrete Finishes Section Three classes of Reference surface finish based on using a straightedge method of testing: Class A has a maximum deviation of 3mm in 3m, Class B has a maximum deviation of 6mm in 3m, and a Class C has a maximum deviation of 6 mm in 600 mm.

TR 34 Concrete Industrial Ground Floors – Specification and Control of Surface Regularity of Free Movement Areas, UK Concrete Society (provides for three classes of industrial surfaces based on maximum permissible difference in slope within 300 mm and maximum difference in elevation between points on a 3 m grid. A floor classification FM3 is the most common and requires a maximum difference of 5.0 mm over 600 mm. A floor classification FM2 requires a maximum difference of 3.5 mm over 600 mm.)

NZS 3109 Concrete Construction Standard, Standards New Zealand (this standard requires the elevation of a slab to be ±5 mm of that specified)

NZS 3114 Specification for Concrete Surface Finishes, Standards New Zealand (gradual deviations are within 5 mm over a 3 m span for most classes of finish; abrupt changes must be less than 3 mm in 200 mm)

Highway standards suggesting possible applications for pedestrian surfaces:


ASTM E 1274-03 Standard test method for measuring pavement roughness using a profilograph

ASTM E 1926-98(2003) Standard practice for computing international roughness index (IRI) of roads from longitudinal profile measurements

ASTM E 2133-03 Standard test method for using a rolling inclinometer to measure longitudinal and transverse profiles of a traveled surface