ADA TOLERANCES – RELATED industry standards

Industry Standards

ACI 117-2010	Standard Specifications for Tolerances for Concrete Construction and Materials
ASTM E 380	Standard Practice for the Use of the International System of Units (SI); The Modernized Metric System.
ASTM E 621-94 (1999)e1	Standard Practice for the Use of Metric (SI) Units in Building Design and Construction
ASTM E 1155-96 (2001)	Standard Test Method for Determining F_F Floor Flatness and F_L Floor Levelness Numbers
ASTM E 1486-98 (2004)	Standard Test Method for Determining Floor Tolerances Using Waviness, Wheel Path and Levelness Criteria
ASTM E 1486M-98 (2004)	Standard Test Method for Determining Floor Tolerances Using Waviness, Wheel Path and Levelness Criteria (Metric)
ASTM F 802-83(2003)	Standard Guide for Selection of Certain Walkway Surfaces when Considering Footwear Traction
ASTM F 1637-02	Standard Practice for Safe Walking Surfaces
ASTM F 1951-99	Wheelchair Work Measurement Method
ASTM PS 83-97/F 1951	Standard on Playground Surface Accessibility
ASTM WK 3539	(Work item) Practice for Reporting Uncertainty of Test Results and Use of the Term Measurement Uncertainty in ASTM Test Methods
CSA A23.1-04/A23.2-04	Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete. Canadian Standards Association, Toronto, 2004.
CSA A23.1-94,	Treatment of Slab or Floor Surfaces: Surface Tolerances, Straightedge Method. Canadian Standards Association, Toronto, 1994.
ISO 1000:1992	SI units and recommendations for the use of their multiples and of certain other units
ISO 1000/Amd1:1998	Amendment to ISO 1000

ISO 1803:1997	Building construction—Tolerances—Expression of dimensional accuracy—Principles and terminology
ISO 2631-1:1997	Mechanical vibration and shock—Evaluation of human exposure to whole-body vibration—Part 1: General requirements
ISO 2631-2:2003	Mechanical vibration and shock—Evaluation of human exposure to whole-body vibration—Part 2: Vibration in buildings (1 Hz to 80Hz)
ISO 2631-5:2004	Mechanical vibration and shock—Evaluation of human exposure to whole-body vibration—Part 5: Method for evaluation of vibration containing multiple shocks
ISO 3443-1	Building construction—Tolerances for building—Part 1: Basic principles for evaluation and specification
ISO 3443-2	Building construction—Tolerances for building—Part 2: Statistical basis for predicting fit between components having a normal distribution of sizes
ISO 3443-3	Building construction—Tolerances for building—Part 3: Procedures for selecting target size and predicting fit
ISO 3443-4	Building construction—Tolerances for building—Part 4: Methods for predicting deviation of assemblies and the distribution of tolerances
ISO 3443-5:1982	Building construction—Tolerances for building—Part 5: Series of values to be used for specification of tolerances
ISO 3443-6:1986	Tolerances for building—Part 6: General principles for approval criteria, control of conformity with dimensional tolerance specifications and statistical control—Method 1
ISO 3443-8:1989	Tolerances for building—Part 8: Dimensional inspection and control of construction work
ISO 4463	Measurement methods for buildings—setting out and measurement—permissible measuring deviations
ISO 4464	Tolerances for buildings—Relationship between the different types of deviations and tolerances used for specifications

Other international standards:

Australian NATSPEC Volume 1:	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 950-98(2004)	Standard test method for measuring the longitudinal profile of traveled surfaces with an accelerometer established inertial profiling reference
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