

# Guardrail & Decking Evaluation Services

Guardrail and Decking evaluation services at Exova will assist manufacturers in evaluating the performance of innovative materials used in the construction of guardrails, decking, railings, fences and steps.

In addition to traditional steel, aluminum and wood construction materials, Exova also evaluates thermoplastic, wood thermoplastic composites, glass fibre composite and PVC materials to the various regulatory requirements.

**Exova's Building Systems Group can evaluate handrails, guardrails, fences and deck materials for:**

- Creep Recovery
- Mechanical Fasteners
- Accelerated Weathering
- Freeze-Thaw Resistance
- Temperature & Moisture Effects
- Mold and Fungi
- Flame Spread Rating
- Structural Load Capacity
- Wind Load Capacity

**Testing of guardrail and decking materials is performed but not limited to the following standards:**

1607.7

- International Building Code

4.1.5.15

- National Building Code of Canada 2005

4.1.10.1.,2,.3

- Ontario Building Code 1997

Ac174

- ICC-ES Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems

ASTM E985

- Permanent Metal Railings and Railings for Buildings

ASTM E894

- Standard Test Method for Anchorage of Permanent Metal Railing Systems and Rails for Buildings

ASTM E935

- Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings

ASTM E661

- Standard Test Method for Performance of Wood and Wood-Based Floor and Roof Sheathing Under Concentrated Static and Impact Loads

ASTM E72

- Standard Test Methods of Conducting Strength Tests of Panels for Building Construction

ASTM E529

- Conducting Flexural Tests on Beams and Girders for Building Construction

APA S-2

- Sheathing and Stud-I-Floor Performance under Uniform Loads

ASTM E196

- Gravity Load Testing of Floors and Flat Roofs

ASTM E455

- Static Load Testing of Floor or Roof Diaphragm Constructions for Buildings

CSA A370

- Connectors for Masonry

**Testing  
Advising  
Assuring**

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