

BC BUILDING CODE INTERPRETATION COMMITTEE
AIBC, APEGBC, BOABC, POABC

File No: 98-0079

INTERPRETATION

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Interpretation Date: September 17, 2003

Building Code Edition: BC Building Code 1998

Subject: slip-resistance of surfaces of ramps and stairs

Keywords: stairs, ramps, paths of travel, slip-resistance

Building Code Reference(s): 3.4.6.1.(1)(a); 3.8.3.2.(1)(b); 9.8.9.5.(2)

Question:

The Building Code requires that the following components of a building have slip-resistant surfaces:

-stairs,

-ramps, and

-paths of travel for disabled persons to a main entrance and exterior ancillary areas required to be accessible.

1. Is there a value of coefficient of friction or slip index above which a surface is deemed to be slip-resistant?
2. If there are such values or indices, by what methods are they to be determined?

Interpretation:

1. No. The Building Code does not prescribe a value of coefficient of friction or slip index above which a surface is deemed to be slip-resistant.

The term "slip-resistant" is not a defined term in the Building Code. As there are no prescriptive criteria stated, the requirements are performance based. The intent of slip-resistance provisions is to prevent occupant slips and resultant falls, by installation of surface finishes which will achieve this objective.

2. As there are no values of coefficient of friction or slip indices stated, there are no coefficient or index methods prescribed to determine slip-resistance. The companion handbook to the Building Code "The Building Access Handbook" comment for Sentence 3.4.6.1.(1) on p. 46 (see attached), provides more guidance on achieving slip-resistance. The guidance table given indicates that the slip resistance of materials given is derived from coefficient of friction testing.


R. J. Light, Committee Chair

The views expressed are the consensus of the joint committee of AIBC, APEGBC, BOABC, and POABC, which form the BC Building Code Interpretation Committee. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

BUILDING ACCESS HANDBOOK**Slip-Resistance
of Ramps &
Stairs**

- 3.4.6.1.(1)** The surface of ramps, and landings and treads
a) shall have a finish that is slip-resistant,

The following table is a general guide for slip resistance of materials based on coefficient of friction testing.

Slip-Resistance of Floor and Tread Finishes

Slip-Resistance		
Material	Dry and Unpolished	Wet
Carpet	very good	good
Clay tiles	good	poor to fair
Clay tiles, textured finish or non-slip granules	very good	good
Concrete	good	poor to fair
Concrete, textured finish or non-slip aggregate	very good	good
Linoleum	good	poor to fair
Rubber, sheet or tiles	very good	very poor
Sheet vinyl	good	poor to fair
Sheet vinyl, non-slip granules	very good	good
Terrazzo	good	poor to fair
Vinyl asbestos tiles	good	fair

Note: Slip-resistance of very good and good is acceptable.
Slip-resistance of fair and poor is not acceptable.

- b) if accessible to the public, shall have either a colour contrast or a distinctive pattern, readily apparent from both directions of travel, to demarcate the leading edge of the tread and the leading edge of the landing, as well as the beginning and end of a ramp.

Making the nosings a sharply contrasting colour to the remainder of the tread is the preferred and easiest method to make them readily apparent from both directions of travel. However, careful material selection and lighting design can permit the use of a single material and colour. A mock-up of a few treads and risers using proposed materials and representative lighting can establish whether or not there is an inherent difference between one nosing and the next.

Treads & Risers

- 3.4.6.7.(1)** Except as permitted for *dwelling units* and by Sentence 3.4.7.5.(1) [B.C. Bldg Code] for fire escapes, steps for stairs shall
- & b) N/A
 - have a closed riser, and
 - have a riser with a rakeback of not more than 38 mm, or
 - have the underside of the nosing with an angle of not less than 60 degrees from the horizontal.