

**American National Standard**

**B101.5 Standard Guide for Uniform Labeling Method for  
Identifying the Wet Static Coefficient of Friction (Traction) of Floor  
Coverings, Floor Coverings with Coatings, and Treated Floor  
Coverings**

**(Product Information Marking)**

Secretariat



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**by**

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## Foreword

(This Foreword is not part of the proposed ANSI/NFSI B101.5-2012 Standard)

This standard was developed by a subcommittee of the National Floor Safety Institute (NFSI) B101 Main Standards Committee, national in scope, functioning under the procedures of the American National Standards Institute with the NFSI as the ANSI Accredited Standards Developer. The NFSI was founded in 1997 with the mission: “To aid in the prevention of slips, trips and falls through education, research and standards development.” The development of the ANSI/NFSI B101.5-2012 Standard is a direct result of the mission of the NFSI answering a need for consumer education to ameliorate the effects of falls.

As a standards developing organization, NFSI sought and was accredited by the Executive Council of ANSI on June 6, 2006 to develop standards addressing the prevention of slips, trips and falls. The American National Standard/NFSI B101.5-2012: *Standard Guide for Uniform Labeling Method for Identifying the Wet Static Coefficient of Friction (Traction) of Floor Coverings, Floor Coverings with Coatings, and Treated Floor Coverings* answers the perceived need for this standard, through an educational approach, to stem the growing number of slips and falls as they relate to insufficient walkway surface traction by defining three separate ranges of traction. Given that the consumer of floor coverings is rarely provided information relevant to the slip resistance characteristics of the floor coverings they purchase, and are unable to comprehend technical information relevant to the measurement of coefficient of friction (COF) the need for an easy-to-understand, consumer driven label using a tested symbol graphic to do so has been brought forth.

The B101 Standards series are targeted at slip, trip and fall prevention which, in this context, set standards for maintaining a safe wet coefficient of friction on various walking surfaces members of the public may encounter. The B101.5 Standard is a part of that development project and exists to provide a consumer friendly symbol graphic to be displayed on these products so purchasers of flooring and floor maintenance products are educated and informed of the inherent slip resistance of that particular product. By referring to this graphic the consumer can make an educated buying decision on flooring and floor maintenance products by being easily able to compare the relative slip resistance properties of competing products. By affixing the graphic this standard establishes a product labeling method which specifies three levels of traction derived from the ANSI/NFSI B101.1-2009 *Test Method for Measuring Wet SCOF of Common Hard-Surface Floor Materials standard*.

The symbol graphic presented in the standard was developed from a field of several collected by the accredited standards developer. From this collection the B101.5 Subcommittee selected three (3) symbol graphics for purposes of referent testing. In turn a nationally recognized independent ergonomic and safety signage research firm tested these referents using the protocols and meeting the guidelines of the ANSI Z535.3 Criteria for Safety Symbols. Based upon the results of testing a diverse and most likely affected consumer population the gauge symbol is the validated norm for this informational standard.

This standards use of color is, in part, based on those developed by the ANSI Z535.1-2006 Safety Colors Standard, which focused on improving labeling safety through uniformity in safety

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color coding. Like the ANSI Z535.1 standard, the safety color codes used in this standard were selected to provide the best feasible discrimination for observers with either normal or color-deficient (colorblind) vision.

Neither the B101 Main Standards Committee, nor the accredited standards developer, perceive that this standard is perfect or in its ultimate form. It is recognized that new developments in communications are to be expected, and that revisions of the standard may be necessary as the combination of science and art progresses and further experience is gained. The committee does believe, however, that the standard in its present form provides a comprehensive a guide when selecting flooring materials and floor maintenance products. To this end it is intended that the requirements contained herein will be adopted by the affected general public, contractors, property owners, and relevant professionals as they seek to make a more informed decision in selecting appropriate floor materials.

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The information in this publication was considered technically sound by the consensus of persons engaged in the development and approval of the document at the time it was developed. Consensus does not necessarily mean that there is unanimous agreement among every person participating in the development of this document.

NFSI standards and guideline publications, of which the document contained herein is one, are submitted and developed through the ANSI voluntary consensus standards development process. This process brings together volunteers and/or seeks out the views of persons who have an interest in the topic covered by this publication. While the NFSI administers the process it does not write the document and it does not independently test, evaluate, or verify the accuracy or completeness of any information or the soundness of any judgments contained in these standards and guideline publications.

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This standard was processed and approved for submittal by the NFSI B101 Committee on Safety Requirements for Slip, Trip and Fall Prevention. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the B101 Standards Committee had the following members:

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GT Grandstands, Inc.  
Heavyweight Solutions  
ISSA-The Worldwide Cleaning Industry Association  
Institute of Inspection, Cleaning and  
Restoration (IICRC)  
Jessup Manufacturing  
Ludlow Composites Corporation  
Maximum Floor Safety  
Murray State University  
National Floor Safety Institute (NFSI)  
Nu-Safe Floors  
Procter & Gamble  
Professional Safety Consultants  
Regan Scientific Instruments, Inc.  
  
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## Figures

1. Traction Symbol – Black on White and Colors



# **B101.5 Standard Guide for Uniform Labeling Method for Identifying the Wet Static Coefficient of Friction (Traction) of Floor Coverings, Floor Coverings with Coatings, and Treated Floor Coverings**

## **Section 1 Scope/Application/Purpose**

**1.1 Scope:** This guideline sets forth a uniform product labeling method which identifies the wet static coefficient of friction (traction) of floor coverings, floor coverings with coatings, and treated floor coverings.

**1.2 Application:** This standard applies to floor products used primarily on public and private areas where pedestrians are not supervisory controlled. The term “floor products” refers to floor coverings, coatings, and treatments intended for floor coverings except carpeting, rugs, mats, runners, and artificial turf.

**1.3 Purpose:** The purpose of this standard is to offer, at the point of product sale, guidance to users/purchasers on the traction capabilities of the contents of the package through display of labels and markings.

## **Section 2 Reference to Standards and Other Documents**

**2.1** ANSI/NFSI B101.1-2009 Test Method for Measuring Wet SCOF of Common Hard-Surface Floor Materials

**2.2** ANSI Z535 Signs and Colors Standards Series<sup>1</sup>

## **Section 3 Definitions**

**3.1 label** (informational) - any printed or stenciled information affixed or otherwise applied to a container or package to inform the user/purchaser of the degree of traction provided.

### **3.2 package / packaging / container**

**3.2.1 package** (consumer) - a primary and / or secondary container designed to contain, store, and protect from the point of manufacture to the point of use (a product intended for household or individual use

**3.2.2 packaging** - wrapping or bundling a single item or bundling a set or quantity of the same item into a single unit.

**3.2.3 container** - a portable receptacle designed to provide material or item integrity for storage, distribution, retailing and use.

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<sup>1</sup> See ANSI Z535 2006 Color Chart, NEMA Rosslyn, VA 22209 for more information regarding Pantone Matching System.

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**3.3 symbol** - a graphic representation intended to convey a message without the use of words.

**3.4 traction** - the friction between a body and the surface on which it moves, i.e., between footwear and flooring.

**3.5 cleaner** - a solvent used to remove foreign matter, soil, or other treatments from a surface.

**3.6 coatings** - a layer of any substance, liquid, or semi liquid applied to a surface that dries or cures to form a solid protective finish to enhance its functional or decorative characteristics.

**3.7 floor covering** - an essentially planar material, combination of resilient materials or combination of resilient material and rigid materials used to provide a finished walking surface on a floor to enhance the beauty, comfort, and utility of the floor.

**3.8 treatments** - any method, technique, or process designed to change the physical character of a floor surface to render it less hazardous and safer for pedestrian ambulation.

**3.9 floor** (in a building) -surface, usually horizontal on which persons typically walk or run.

## **Section 4 General Requirements of Label/Marking**

### **4.1 Location on Package**

**4.1.1** The symbol and markings shall be placed in the principal panel of the package or container within the normal field of view.

### **4.2 Symbol/Marking Specifications**

**4.2.1** Black symbol and shades of black and markings on white or other background in a rectangle shape shall be formatted in the principal panel.

**4.2.2** Color within the symbol (see Figure 1 A to C) shall be permitted to enhance the message

### **4.3 Symbol size**

**4.3.1** The symbol shall be legible at the intended viewing distance.

**4.3.2** The print font within the symbol shall be Ariel and no less than 8 point size.

### **4.4 Graphic presentation of the symbol and marking**

**4.4.1** Figures 1 A to C shall be used in the principal panel of the product package or container based upon the test values derived from the requirements established by the ANSI/NFSI B101.1-2009 Standard.

**4.4.2** The indicating arrow within the symbol shall point to the numerical value of traction provided by the product across the scale from lowest value of one (1) to highest value of ten (10).

**4.4.3** If color is used, the safety color code in Figures 1 A to C shall use the Pantone Numbers as follows:

<u>Pantone No.</u>	<u>Color</u>	<u>Gauge No.</u>
485 C	Red	1 thru 4 (low traction)
109 C	Yellow	5 thru 6 (moderate traction)
3415 C	Green	7 thru 10 (high traction)

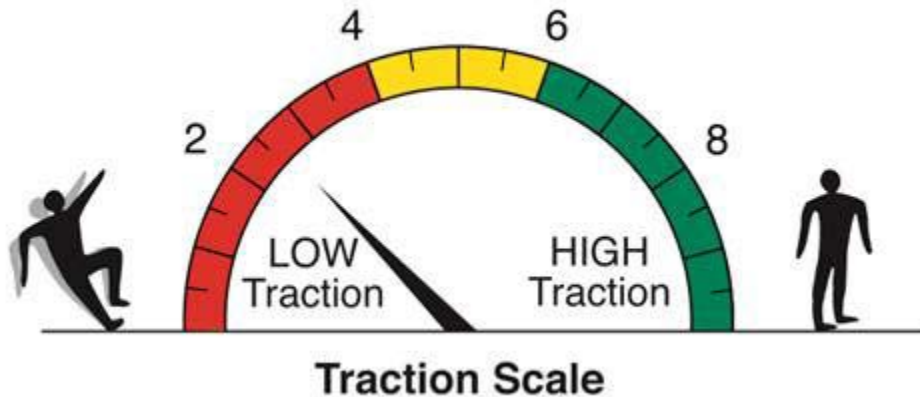
*NOTE: The above parenthetical reference of traction and its corresponding gauge Segment numbers are derived from the ANSI/NFSI B101.1-2009 Standard, Section 5: Calculations Data Interpretations/Table 1. This Table also provides remediation guidance for the type of floor surfaces corresponding to these levels or degrees of traction.*

**4.4.4** While SCOFs are cited as decimal values, the symbol graphic uses whole numbers ranging from 1 to 10. Because decimal values would be meaningless or confusing to the public, manufacturers should multiply their product (s) COF test result values by 10.

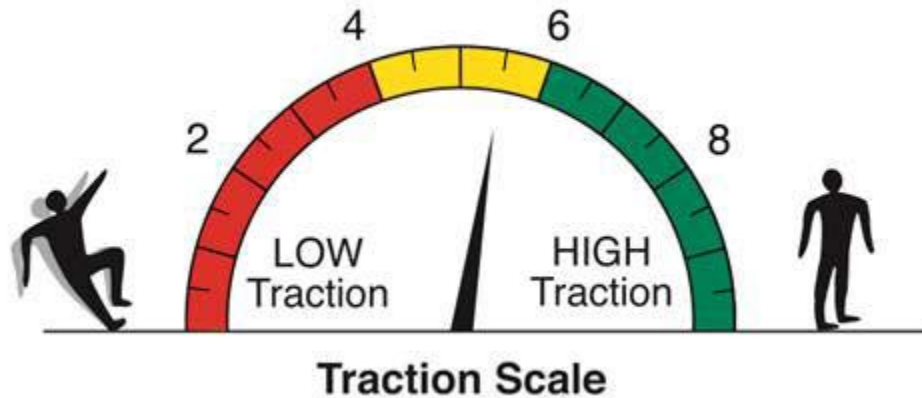
*NOTE: To accommodate and make more precise the decimal values, each Traction Scale segment is divided in half by a mid-point marker (1/8") allowing the indicating arrow to point to the exact value of the decimal reading which may be either below or above the marker.*

**4.5 Exemplars of Figure 1**

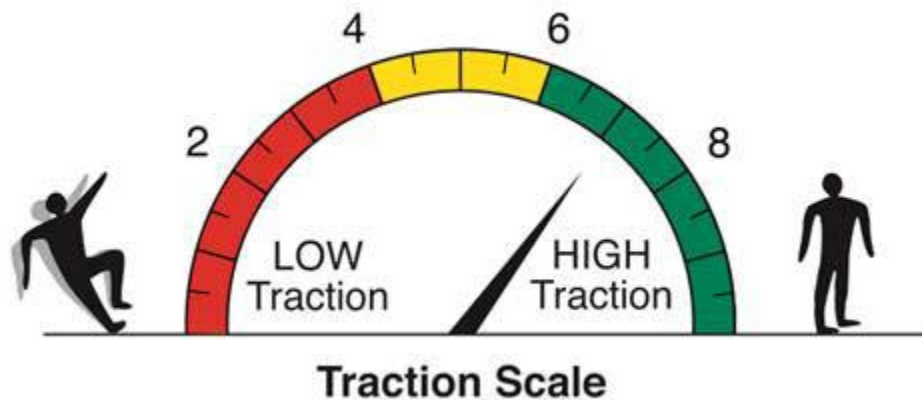
**4.5.1 Figure 1 A**



4.5.2 Figure 1 B



4.5.3 Figure 1 C



## Section 5 Package/Container Marking

**5.1** The package/container holding flooring materials or products shall bear on the principal display panel the symbol marking as described in 4.2, 4.3, 4.4, and 4.5. In addition, and if warranted the message may contain the following phrase (or equivalent): “Read and follow all safety information and instructions.”

**5.2** So that purchasers can identify floor materials and products conforming to all of the requirements of this guide, producers, importers, and distributors may include a statement of compliance in conjunction with their name and address on product labels, invoices and sales literature. For example, “This product meets all the requirements of the ANSI/NFSI B01.5-2012 Standard (name and address of producer, importer, or distributor)”.