

Entertainment Services and Technology Association



American National Standard
E1.34 - 2009, Entertainment Technology
Measuring and Specifying the Slipperiness
of Floors Used in Live Performance Venues

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[inside front cover]

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American National Standard E1.34 - 2009, Entertainment Technology Measuring and Specifying the Slipperiness of Floors Used in Live Performance Venues

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The ESTA Technical Standards Program

The ESTA Technical Standards Program was created to serve the ESTA membership and the entertainment industry in technical standards related matters. The goal of the Program is to take a leading role regarding technology within the entertainment industry by creating recommended practices and standards, monitoring standards issues around the world on behalf of our members, and improving communications and safety within the industry. ESTA works closely with the technical standards efforts of other organizations within our industry, including USITT, PLASA, and VPLT, as well as representing the interests of ESTA members to ANSI, UL, and the NFPA. The Technical Standards Program is accredited by the American National Standards Institute.

The Technical Standards Committee (TSC) was established by ESTA's Board of Directors to oversee and coordinate the Technical Standards Program. Made up of individuals experienced in standards-making work from throughout our industry, the Committee approves all projects undertaken and assigns them to the appropriate working group. The Technical Standards Committee employs a Technical Standards Manager to coordinate the work of the Committee and its working groups as well as maintain a "Standards Watch" on behalf of members. Working groups include: Camera Cranes, Control Protocols, Electrical Power, Floors, Fog and Smoke, Followspot Position, Photometrics, and Rigging.

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which is available from the ESTA office. Your application is subject to approval by the working group and you will be required to actively participate in the work of the group. This includes responding to letter ballots and attending meetings. Membership in ESTA is not a requirement. You can also become involved by requesting that the TSC develop a standard or a recommended practice in an area of concern to you.

The Floors Working Group, which authored this Standard, consists of a cross section of entertainment industry professionals representing a diversity of interests related to performance floors. ESTA is committed to developing consensus-based standards and recommended practices in an open setting. Future Floors Working Group projects will include updating this publication as changes in technology and experience warrant, as well as developing new standards and recommended practices for the benefit of the entertainment industry.

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Acknowledgments

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[CP] Custom-market Producer
[MP] Mass-market Producer
[DR] Dealer or Rental company
[U] User
[G] General Interest

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1 Scope

This standard describes means of measuring and specifying the slipperiness of floor surface materials used by performers in live entertainment venues. The standard is not intended to be applied to normal walking and working surfaces, but only to those floor surface materials used by actors, dancers, and other similar artists when rehearsing or performing.

2 Application

This standard offers two procedures for measuring and specifying the slipperiness of floor surface materials used by performers to address particular measurement problems. The two testing procedures are to address two different uses for measurements of floor slipperiness.

The first testing procedure, the [General Testing Procedure](#), is intended to render a number that can be used in comparing the relative slipperiness of floor materials when the friction materials are the floor surface and stainless steel. It is likely to be useful for marketing purposes and for comparisons between floor materials, but it may not be representative of the slipperiness experienced by a performer in a particular situation, since the performer is unlikely to have footwear with soles and heels made of stainless steel.

The second testing procedure, the [Specific Testing Procedure](#), provides a means of rendering a slipperiness number for a floor surface when specific footwear material is contacting it. This procedure may be useful for helping solving problems when a performer reports that a floor is too slippery or too sticky by allowing objective measurement of the slipperiness. Having an objective measurement can help facilitate finding different floor or footwear materials that are less slippery or sticky to satisfy the performer.

Clauses marked with an asterisk have a corresponding explanatory note in Annex A. The note has the same clause number but has an "A." prefix. All the explanatory notes in Annex A are informational and do not add or remove any requirements from this standard.

3 Basic Test Equipment

The basic test equipment consists of a dragsled, a spring balance or force gauge, and a push stick, which serves as a means of drawing the dragsled across a sample of floor surface material.

3.1 The dragsled

[3.1.1*](#) The dragsled shall be a rigid body, approximately 240 mm long by 120 mm wide, with a uniformly distributed mass of 5 kilograms, plus or minus 25 grams.