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English Version

Determination of slip resistance of pedestrian surfaces - Methods of evaluation

Détermination de la résistance à la glissance des surfaces piétonnières - Méthodes d'évaluation

Bestimmung der Rutschhemmumg von Fußböden - Ermittlungsverfahren

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Foreword

This document (CEN/TS 16165:2012) has been prepared by Technical Committee CEN/TC 339 “Slip resistance of pedestrian surfaces - Methods of evaluation”, the secretariat of which is held by DIN.

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Introduction

This document describes the most commonly used test methods in Europe for the determination of the slip resistance of floorings in the most commonly encountered situations in which pedestrians walk.

The method in Annex A describes the test method based on the ramp with contaminant water and operator barefoot.

The method in Annex B describes the test method based on the ramp with contaminant oil and operator wearing specified shoes.

NOTE The contaminant oil is used only to make the test more sensitive.

The method in Annex C describes the test method based on the pendulum in dry and wet conditions using specified rubber sliders. This method can be used in situ.

The method in Annex D describes the test method based on the tribometer in dry and wet conditions using specified rubber sliders. This method can be used in situ.

The tests described in Annexes A and B are laboratory tests. The tests described in Annexes C and D are laboratory and in situ tests. It is recommended to use Annexes A to D in the situations described as follows:

The method in Annex A: Floorings in wet conditions where the pedestrian is barefoot.

The method in Annex B, C and D: Floorings in private and/or public and/or work areas in wet and/or dry conditions where the pedestrian is wearing shoes.

1 Scope

This Technical Specification specifies test methods for the determination of the slip resistance of surfaces in the most commonly encountered situations in which pedestrians walk.

This Technical Specification does not cover sports surfaces and road surfaces for vehicles (skid resistance).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 438-4, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (Usually called Laminates) — Part 4: Classification and specifications for Compact laminates of thickness 2 mm and greater*

EN ISO 868, *Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868)*

EN ISO 4287, *Geometrical product specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287)*

EN ISO 20345, *Personal protective equipment — Safety footwear (ISO 20345)*

ISO 5725-2, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

ISO 5725-5, *Accuracy (trueness and precision) of measurement methods and results — Part 5: Alternative methods for the determination of the precision of a standard measurement method*

ISO 7619-1, *Rubber, vulcanized or thermoplastic — Determination of indentation hardness — Part 1: Durometer method (Shore hardness)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
pedestrian surface
surface which is designed for people to walk upon

3.2
acceptance angle
lowest angle of the inclined ramp at which the test person reaches the limit of safe walking when slipping occurs

3.3
contaminant
material on the surface of the surface which is not an inherent part of the surface and which can affect the frictional properties of that surface

3.4
surface
pedestrian surface excluding road surfaces and sports surfaces