

ICS 93.080.20

English Version

Road and airfield surface characteristics - Part 7: Procedure for determining the skid resistance of a pavement surface using a device with longitudinal fixed slip ratio (LFCG): the GripTester(r)

Caractéristiques de surface des routes et aéroports - Partie 7 : Mode opératoire de détermination de l'adhérence d'un revêtement de chaussée à l'aide d'un dispositif à coefficient de frottement longitudinal fixe (CFLG): le GripTester

Oberflächeneigenschaften von Straßen und Flugplätzen - Teil 7: Verfahren zur Bestimmung der Griffigkeit von Fahrbahndecken durch Verwendung eines Geräts mit festem Schlupfverhältnis in Längsrichtung (LFCG): der GripTester

This Technical Specification (CEN/TS) was approved by CEN on 27 June 2009 for provisional application.

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Foreword

This document (CEN/TS 15901-7:2009) has been prepared by Technical Committee CEN/TC 227 "Road materials", the secretariat of which is held by DIN.

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1 Scope

This Technical Specification describes a method for determining the skid resistance of a surface by measurement of the longitudinal friction coefficient LFCG.

The method provides a measure of the wet skid resistance properties of a bound surface by measurement of the longitudinal friction coefficient using a continuous reading small braked wheel fixed-slip device.

The test tyre is dragged over a pre-wetted pavement under controlled speed conditions while the test tyre is parallel to the direction of motion and perpendicular to the pavement.

Test speeds can vary from 5 km/h to 130 km/h depending on the application. The measured values can be affected by the test speed.

The method has been developed for use on paved areas such as roads and airport runways and may also be used indoors.

This Technical Specification covers the operation of the GripTester.

The GripTester® is a device developed by Findlay Irvine Ltd in the United Kingdom that uses the braked-wheel fixed-slip principle with a small test wheel to make measurements of skid resistance continuously on airfields, roads and other surfaces. The fixed slip ratio is 15 %.

A machine conforming to the general characteristics of the GripTester and the specific provisions of this Technical Specification may also be used for the tests.

The skid resistance of a pavement is determined by friction measurements and measurements of pavement texture. Where measurement of pavement texture is required the standard for this measurement and the device is described in EN ISO 13473-1.

2 Normative references

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

ISO 48, *Rubber, vulcanized or thermoplastic – Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

ISO 4662, *Rubber – Determination of rebound resilience of vulcanizates*

3 Recommended uses

The method is applicable to the following types of pavements, for example:

- road surfacings;
- road markings;
- airport runways;
- flight decks;
- footways;