

English Version

**Road and airfield surface characteristics - Part 8: Procedure for
determining the skid resistance of a pavement surface by
measurement of the sideways-force coefficient (SFCD): SKM**

Caractéristiques de surface des routes et aéroports - Partie
8 : Mode opératoire de détermination de l'adhérence d'un
revêtement de chaussée en procédant au mesurage du
coefficient de frottement transversal: le SKM

Oberflächeneigenschaften von Straßen und Flugplätzen -
Teil 8: Verfahren zur Bestimmung der Griffigkeit von
Fahrbahndecken durch Messung des
Seitenreibungsbeiwertes (SFCD): das SKM-
Griffigkeitsmessgerät

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Foreword

This document (CEN/TS 15901-8:2009) 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 wet-road skid resistance of a surface by measurement of the sideways-force coefficient SFCD.

The method provides a measure of the wet-road skid resistance properties of a bound surface by measurement of sideways-force coefficient at a controlled speed.

This Technical Specification covers the operation of the sideways-force Coefficient Machine (SKM) developed in Germany.

The SKM skid resistance measurement technique determines the sideways-force acting on a particular, angled wheel.

The SKM measurement technique has been developed for Network-wide measurements of skid resistance during road monitoring and assessment of pavement surfaces on German federal motorways and highways. It is also applicable to skid resistance measurements for road construction contracts.

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 Recommended uses

The SKM measuring technique is suitable for use for the following applications:

- monitoring of networks (Pavement Management);
- approval of new surfacing;
- measurements for project-level compliance;
- investigation of surface skid resistance;
- comparative measurements among different devices;
- research measurements.

3 Terms and definitions

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

3.1

skid resistance

property of a trafficked surface that limits relative movement between the surface and the part of a vehicle tyre in contact with the surface

NOTE Factors that contribute to skid resistance include the tyre pressure, contact area, tread pattern, and rubber composition; the alignment, texture, surface contamination, and characteristics of the road surface; the vehicle speed; and the weather conditions.

The skid resistance of a road surface in Europe varies seasonally. Generally, wet skid resistance is higher in winter as a result of the effects of wet detritus and the effects of frost and wear by tyres on microtexture and macrotexture. Wet skid resistance is lower in summer as a result of dry polishing by tyres in the presence of fine detritus.