

English Version

**Road and airfield surface characteristics - Part 2: Procedure for determining the skid resistance of a pavement surface using a device with longitudinal controlled slip (LFCRNL): ROAR (Road Analyser and Recorder of Norsemeter)**

Caractéristiques de surface des routes et aéroports - Partie 2 : Mode opératoire de détermination de l'adhérence d'un revêtement de chaussée à l'aide d'un dispositif à frottement longitudinal contrôlé (CFLRNL): le ROAR (Analyseur de route et Enregistreur du Norsemeter)

Oberflächeneigenschaften von Straßen und Flugplätzen - Teil 2: Verfahren zur Bestimmung der Griffigkeit von Fahrbahndecken durch Verwendung eines Geräts mit geregelter Schlupf in Längsrichtung (LFCRNL): das in den Niederlanden verwendete ROAR-Gerät (Road-Analyser and Recorder of Norsemeter)

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 15901-2:2009) 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 measuring the  $LFCR_{NL}$  using the Road Analyser and Recorder of Norsemeter (ROAR).

In addition to the friction measurement also measurements of pavement texture may be performed.

The method provides friction coefficient measurements of pavements by using a hydraulically braked test wheel at a pre-set slip ratio, which may be fixed from 5 % to 95 %. Default value for the Netherlands is 86 %.

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

To determine the macrotexture of the pavement a laser system is used. This system is placed in front of the towing vehicle in order to measure the macrotexture on dry pavements and on the same path as the skid resistance measurement is done. The standard for this measurement and the used measuring device are well described in EN ISO 13473-1 and ISO 13473-2.

## 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.

EN ISO 13473-1, *Characterization of pavement texture by use of surface profiles – Part 1: Determination of Mean Profile Depth (ISO 13473-1:1997)*

ISO 13473-2, *Characterization of pavement texture by use of surface profiles – Part 2: Terminology and basic requirements related to pavement texture profile analysis*

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## 3 Fields of application

The method provides a means for the evaluation of the skid resistance of a road surface. It is suitable for use in the following situations:

- for routine measurements of a road in service, either network monitoring for Pavement Management, or measurements on project-level;
- approval of new works;
- research measurements.

## 4 Terms and definitions

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

### 4.1

#### **skid resistance**

characterisation of the friction of a road surface when measured in accordance with a standardised method