

## **Mehaaniline võnkumine. Laborimeetod vibratsiooni määramiseks sõiduki istmel. Osa 1: Põhinõuded**

Mechanical vibration - Laboratory method for  
evaluating vehicle seat vibration - Part 1: Basic  
requirements

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 30326-1:1999 sisaldab Euroopa standardi EN 30326-1:1994 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 30326-1:1999 consists of the English text of the European standard EN 30326-1:1994.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>See standard määrab kindlaks sõiduki istmelt sellel istuja kehale ülekanduva vibratsiooni teimimise põhinõuded. Need mõõtmis- ja analüüsimeetodid võimaldavad võrrelda eri laborite teimitulemusi.</p>	<p><b>Scope:</b></p>
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ICS 17.160

**Võtmesõnad:** inimkeha, istmed, laborikatsed, liikurseadmed, mootorsõidukid, summutusteimid, sõidukid, teimid, vibratsioon, vibratsiooniteimid

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Descriptors: Road vehicles, motor vehicles, mobile equipment, vibration, seats, tests, laboratory tests, vibration tests, damping tests, human body.

**English version**

Mechanical vibration  
**Laboratory method for evaluating vehicle seat vibration**  
Part 1: Basic requirements  
(ISO 10326-1:1992)

Vibrations mécaniques; méthode en laboratoire pour l'évaluation des vibrations du siège de véhicule. Partie 1: Exigences de base (ISO 10326-1:1992)

Mechanische Schwingungen; Laborverfahren zur Bewertung der Schwingungen von Fahrzeugsitzen. Teil 1: Grundlegende Anforderungen (ISO 10326-1:1992)

This European Standard was approved by CEN on 1994-05-12 and is identical to the ISO Standard as referred to.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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## Foreword

This European Standard was taken over by Technical Committee CEN/TC 231 'Mechanical vibration and shock' from the work of TC 108 'Mechanical vibration and shock' of the International Organization for Standardization (ISO).

CEN/TC 231 decided to submit the final draft of

ISO 10326-1:1992 Mechanical vibration; laboratory method for evaluating vehicle seat vibration; basic requirements to the Unique Acceptance Procedure.

The result was positive.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by November 1994 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## Endorsement notice

The text of the International Standard ISO 10326-1:1992 was approved by CEN as a European Standard without any modification.

## Introduction

Drivers, staff and passengers of vehicles (land, air or water) and mobile off-road machinery are exposed to mechanical vibration which interferes with their comfort, working efficiency and, in some circumstances, safety and health. The following basic requirements have therefore been developed for the laboratory testing of vibration transmission through a vehicle seat to the occupant.

## 1 Scope

This part of ISO 10326 specifies basic requirements for the laboratory testing of vibration transmission through a vehicle seat to the occupant. These methods for measurement and analysis make it possible to compare test results from different laboratories.

It specifies the test method, the instrumentation requirements, the measuring assessment method and the way to report the test result.

This part of ISO 10326 applies to specific laboratory seat tests which evaluate vibration transmission to the occupants of any type of seat used in vehicles and mobile off-road machinery.

Application standards for specific vehicles should refer to this part of ISO 10326 when defining the test input vibration that is typical for the vibration characteristics of the type or class of vehicle or machinery in which the seat is to be fitted.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10326. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10326 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2631-1:1985, *Evaluation of human exposure to whole-body vibration — Part 1: General requirements*.

ISO 5347-0:1987, *Methods for the calibration of vibration and shock pick-ups — Part 0: Basic concepts*.

ISO 8041:1990, *Human response to vibration — Measuring instrumentation*.

## 3 General

The measurement and assessment methods given in this part of ISO 10326 comply with the present practice standardized in ISO 2631-1. The measuring equipment and the frequency weightings shall be in accordance with ISO 8041.

The primary test for the vibration characteristics of the seat involves measurements under conditions which simulate the range of actual uses of a vehicle or machine. For some applications, a secondary test is used to ensure that the seat responds acceptably to occasional severe shocks or transient vibration. Given the present state of knowledge, a test to evaluate the damping of the seat suspension is proposed for this purpose. The seat to be tested shall be mounted on a horizontal platform of a vibration simulator, which shall have movements in the vertical and/or one of the horizontal directions, as specified in application standards.

NOTE 1 In order to make tests in both horizontal directions,  $x$  and  $y$ , the seat may be turned 90° on the platform.