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## Characterization of pavement texture by use of surface profiles —

### Part 5: Determination of megatexture

*Caractérisation de la texture d'un revêtement de chaussée à partir de  
relevés de profils de la surface —*

*Partie 5: Détermination de la mégatexture*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 13473-5 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*.

ISO 13473 consists of the following parts, under the general title *Characterization of pavement texture by use of surface profiles*:

- *Part 1: Determination of Mean Profile Depth*
- *Part 2: Terminology and basic requirements related to pavement texture profile analysis*
- *Part 3: Specification and classification of profilometers*
- *Part 4: Spectral analysis of surface profiles* [Technical Specification]
- *Part 5: Determination of megatexture*

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## Introduction

Pavement surface texture largely influences factors such as noise emission caused by tyre/road interaction (Reference [7]), tyre/pavement friction (Reference [8]), and comfort, as well as rolling resistance and wear of tyres. Reliable methods of texture measurement are therefore essential.

Texture is subdivided into micro-, macro- and megatexture according to ISO 13473-2. A method for measurement and calculation of a macrotexture indicator based on a profile measurement is specified in ISO 13473-1. A procedure for measuring macrotexture by the volumetric patch method is described in ISO 10844:1994<sup>[2]</sup>, Annex A. Currently, no reliable and practical method of measuring pavement microtexture *in situ* is available. This part of ISO 13473 aims to provide means of measuring and calculating megatexture indicators useful for pavement surface characterization.

Megatexture is an important texture range lying between macrotexture and unevenness. This type of texture has wavelengths of the same order of magnitude as a tyre/road interface and is often a result of potholes or 'washboarding'. Some common types of singularities, such as a single depressed or protruding spot on the pavement, will also show up in a texture profile spectrum as megatexture. Although some pavements, such as paving stones, possess an intrinsic megatexture, it is usually an unwanted characteristic resulting from defects in the surface.

The scope of ISO 13473 (all parts) does not include profile analysis of road unevenness, which is dealt with in ISO 8608<sup>[1]</sup>.