



ISO 13473-4

Characterization of pavement texture by use of surface profiles —

Part 4:
One third octave band spectral analysis of surface profiles

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

Partie 4: Analyse spectrale par bande d'un tiers d'octave des profils de la surface

**First edition
2024-04**

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Published in Switzerland

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This document was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*.

This second edition cancels and replaces the first edition (ISO/TS 13473-4:2008), which has been technically revised.

The main changes are as follows:

- the pre-processing of the input data to the spectral analysis has been improved and is in line now with the procedure of ISO 13473-1
- an old analogue technique has been removed and there is one normative method of the spectral analysis defined;
- significant improvements have been made to the uncertainty analysis.

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Pavement texture is a basic road surface characteristic and is related to many important functional characteristics, such as noise emission from tyre-road interaction, friction between tyre and road, rolling resistance, tyre wear and the technical condition of the road surface.

Spectral analysis is commonly used in various fields of signal processing and has been found to be a useful method of pavement characterization for pavement surface profiles including texture measurements.

There are many ways to perform spectral analysis. The current document describes the spectral analysis, in octave and one-third-octave bands.