

DIN ISO 13472-1:2024-08 (E)

Acoustics - Measurement of sound absorption properties of road surfaces in situ - Part 1: Extended surface method (ISO 13472-1:2022)

Contents		Page
National foreword		3
National Annex NA (informative) Bibliography		5
Foreword		6
Introduction		7
1 Scope		8
2 Normative references		8
3 Terms and definitions		8
4 Summary of the method		10
4.1 General principle.....		10
4.2 Signal separation technique.....		11
4.3 Test method.....		12
5 Test system		13
5.1 Components of the test system.....		13
5.2 Sound source.....		13
5.3 Test signal.....		13
6 Data processing		13
6.1 Calibration.....		13
6.2 Sampling frequency.....		14
6.3 Temporal separation of the signals.....		14
7 Positioning of the equipment		15
7.1 Maximum sampled area.....		15
7.2 Positioning of the measuring equipment.....		15
7.3 Reflecting objects.....		16
7.4 Background noise.....		16
7.5 Safety considerations.....		17
8 Road surface and meteorological conditions		17
8.1 Condition of the road surface.....		17
8.2 Wind.....		18
8.3 Temperature.....		18
9 Measurement procedure		18
10 Measurement uncertainty		19
11 Test report		21
Annex A (normative) Radius of the maximum sampled area		22
Annex B (normative) Reference measurement and correction procedure		23
Annex C (informative) Physical principle of the measurement		24
Annex D (informative) Example of a test report		26
Annex E (informative) Sound absorption coefficient at non-normal incidence		30
Annex F (normative) Correction of small time shifts in the direct impulse response between the free-field measurement and the reflected measurement		32
Bibliography		36