

Australian/New Zealand Standard™

**Acoustics—Measurement of sound
insulation in buildings and of building
elements**

**Part 7: Field measurements of impact
sound insulation of floors
(ISO 140-7:1998, MOD)**



AS/NZS ISO 140.7:2006

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee AV-004, Acoustics Architectural. It was approved on behalf of the Council of Standards Australia on 6 January 2006 and on behalf of the Council of Standards New Zealand on 20 January 2006.

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The following are represented on Committee AV-004:

Association of Acoustical Consultants
Australian Acoustical Society
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Defence Force Academy
Building Industry Authority, New Zealand
CSIRO Manufacturing & Infrastructure Technology
Department of Commerce, NSW
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**Part 7: Field measurements of impact sound insulation of floors
(ISO 140-7:1998, MOD)**

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PREFACE

This Standard was prepared by the Joint Standards Australian/Standards New Zealand Committee AV-004, Acoustical Architectural.

This Standard has been adopted with national modifications and has been reproduced from ISO 140-7:1998. These changes have been made to allow for direct measurements in a receiving room.

Appendix ZZ lists the variations between this Standard and ISO 140-7:1998. For the purpose of this Standard, the ISO text is amended, supplemented or replaced as set out in Appendix ZZ.

The objective of this Standard is to specify field methods for measuring the impact sound insulation properties of buildings floors by using a standard tapping machine. This method is applicable to bare floors and also to floors with coverings.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source test ‘this part of ISO 140’ should read ‘this Australian/New Standard Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

For Australia only, this Standard provides for the use of the following Australian Standards in place of particular International Standards referenced herein:

<i>Reference to International Standard*</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS	
140	Acoustics—Measurement at sound insulation in buildings and of building elements	1191	Acoustics—Method for laboratory measurement of airborne sound transmission insulation of building elements
140-3	Part 3: Laboratory measurements of airborne sound insulation of building elements		
354	Acoustics—Measurement of sound absorption in a reverberation room	1045	Acoustics—Measurement of sound absorption in a reverberation room
		AS ISO	
717	Acoustics—Rating of sound insulation in buildings and of building elements	717	Acoustics—Rating of sound insulation in buildings and of building elements
717-2	Part 2: Impact sound insulation	717.2	Part 2: Impact sound insulation
IEC		AS IEC	
60651	Sound level meters	61672	Electroacoustics—Sound level meters
		61672.1	Part 1: Specifications
		61672.2	Part 2: Pattern evaluation tests

For New Zealand, the normative references listed in Clause 2 are applicable.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex or appendix to which they apply. A ‘normative’ annex or appendix is an integral part of a Standard, whereas an ‘informative’ annex or appendix is only for information and guidance.

* Only referenced International Standards that have been adopted an Australian Standard have been listed.

CONTENTS

1	SCOPE	1
2	NORMATIVE REFERENCES.....	1
3	DEFINITIONS	2
4	EQUIPMENT	3
5	TEST PROCEDURE AND EVALUATION	3
6	PRECISION	6
7	EXPRESSION OF RESULTS.....	6
8	TEST REPORT	6
	ANNEX A REQUIREMENTS FOR THE STANDARD TAPPING MACHINE	7
	ANNEX B PROCEDURES FOR THE MEASUREMENT OF SOUND INSULATION IN OCTAVE BANDS.....	9
	ANNEX C GUIDANCE FOR MEASUREMENTS IN LOW FREQUENCY BANDS	11
	ANNEX D FORMS FOR THE EXPRESSION OF RESULTS.....	12
	ANNEX E BIBLIOGRAPHY.....	17
	APPENDIX ZZ LIST OF VARIATIONS BETWEEN THIS STANDARD AND ISO 140-7:1998....	18

AUSTRALIAN/NEW ZEALAND STANDARD

Acoustics—Measurement of sound insulation in buildings and of building elements

Part 7:

Field measurements of impact sound insulation of floors
(ISO 140-7:1998, MOD)

1 Scope

This part of ISO 140 specifies field methods for measuring the impact sound insulation properties of building floors by using a standard tapping machine. The method is applicable to bare floors and also to floors with coverings.

The results obtained can be used to compare the impact sound insulation properties of floors and to compare the apparent impact sound insulation of floors with specified requirements.

NOTE 1 Laboratory measurements of impact sound insulation of floors are dealt with in ISO 140-6.

NOTE 2 Laboratory measurements of the reduction of transmitted impact noise by floor coverings on a heavyweight standard floor are dealt with in ISO 140-8.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 140. 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 140 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 140-2:1991, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 2: Determination, verification and application of precision data.*

ISO 140-3:1995, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 3: Laboratory measurements of airborne sound insulation of building elements.*

ISO 354:1985, *Acoustics — Measurement of sound absorption in a reverberation room.*

ISO 717-2: 1996, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 2: Impact sound insulation.*

IEC 60651:1979, *Sound level meters.*

IEC 60804:1985, *Integrating-averaging sound level meters.*

IEC 60942: 1988, *Sound calibrators.*

IEC 61260:1995, *Electroacoustics — Octave band filters and fractional — Octave band filters.*