

Australian Standard™

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

**Part 6: Laboratory measurements of
impact sound insulation of floors**

STANDARDS
Australia



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Association of Australian Acoustical Consultants
Australian Acoustical Society
Australian Building Codes Board
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PREFACE

This Standard was prepared by the Standards Australia members of the Joint Standards Australia/Standards New Zealand Committee AV-004, Acoustics Architectural. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

This Standard is identical to ISO 140-6:1998, *Acoustics—Measurement of sound insulation in buildings and of building elements, Part 6: Laboratory measurements of impact sound insulation of floors*.

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

- (a) Its number appears on the cover and title page while the international standard number appears only on the cover
- (b) In the source text ‘this part of ISO 146’ should read ‘this Australian Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard*</i>	<i>Australian Standard</i>
ISO	AS ISC
354 Acoustics—Measurement of sound absorption in a reverberation room	354 Acoustics—Measurement of sound absorption in a reverberation room
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 Electro-acoustics—Sound level meters 61672.1 Part 1: Specification 61672.2 Part 2: Pattern evaluation tests
60804 Integrating-averaging sound level meters	61672.1 Part 1: Specification 61672.2 Part 2: Pattern evaluation tests
	AS/NZS
60942 Sound calibrators	60942 Electroacoustics—Sound calibrators
61260 Electroacoustics—Octave-band filters and fractional-octave band filters	4476 Acoustics—Octave-band and fractional-octave-band-filters

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

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

AUSTRALIAN STANDARD

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

Part 6: Laboratory measurements of impact sound insulation of floors

1 Scope

This part of ISO 140 specifies a laboratory method for measuring impact noise transmission through 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 classify floors according to their sound insulation capabilities.

NOTE 1 Field measurements of impact sound insulation of floors are dealt with in ISO 140-7.

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 140-1:1997, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 1: Requirements for laboratory test facilities with suppressed flanking transmission.*

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 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 60442:1985, *Sound calibrators.*

IEC 61160:1995, *Electroacoustics — Octave band filters and fractional — Octave band filters.*