

This is a preview of "ISO 717-1:2013". [Click here to purchase the full version from the ANSI store.](#)

Third edition  
2013-03-01

---

---

# Acoustics — Rating of sound insulation in buildings and of building elements —

## Part 1: Airborne sound insulation

*Acoustique — Évaluation de l'isolement acoustique des immeubles et  
des éléments de construction —*

*Partie 1: Isolement aux bruits aériens*



Reference number  
ISO 717-1:2013(E)

© ISO 2013

This is a preview of "ISO 717-1:2013". Click [here](#) to purchase the full version from the ANSI store.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "ISO 717-1:2013". Click here to purchase the full version from the ANSI store.

## Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Procedure for evaluating single-number quantities</b> .....	<b>2</b>
4.1 General .....	2
4.2 Reference values .....	3
4.3 Sound spectra .....	3
4.4 Method of comparison .....	3
4.5 Calculation of spectrum adaptation terms .....	8
<b>5 Statement of results</b> .....	<b>8</b>
5.1 General .....	8
5.2 Statement of performance of building elements .....	9
5.3 Statement of requirements and of performance of buildings .....	9
<b>Annex A (informative) Use of spectrum adaptation terms</b> .....	<b>10</b>
<b>Annex B (informative) Terms and spectra for an enlarged frequency range</b> .....	<b>12</b>
<b>Annex C (informative) Examples of the calculation of single-number quantities and spectrum adaptation terms</b> .....	<b>15</b>
<b>Bibliography</b> .....	<b>18</b>

## 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 717-1 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

This third edition cancels and replaces the second edition (ISO 717-1:1996), which has been technically revised. It also incorporates the Amendment ISO 717-1:1996/Amd. 1:2006.

The purpose of this revised version is to:

- allow weighting steps of 0,1 dB to be used for expression of uncertainty;
- update references.

ISO 717 consists of the following parts, under the general title *Acoustics — Rating of sound insulation in buildings and of building elements*:

- *Part 1: Airborne sound insulation*
- *Part 2: Impact sound insulation*

This is a preview of "ISO 717-1:2013". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

Methods of measurement of airborne sound insulation of building elements and in buildings have been standardized e.g. in ISO 10140-2, ISO 140-4, and ISO 140-5. The purpose of this part of ISO 717 is to standardize a method whereby the frequency-dependent values of airborne sound insulation can be converted into a single number characterizing the acoustical performance.

References to standards which provide data for single-number evaluation are meant to be examples and therefore are not complete.