
**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

Document Preview

ISO 717-1:2020

<https://standards.iteh.ai/catalog/standards/iso/d1c7e1ff-4ebc-4f02-a5a4-df4da2d54e7f/iso-717-1-2020>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 717-1:2020

<https://standards.iteh.ai/catalog/standards/iso/d1c7e1ff-4ebc-4f02-a5a4-df4da2d54e7f/iso-717-1-2020>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Procedure for evaluating single-number quantities	2
4.1 General.....	2
4.2 Reference values.....	4
4.3 Sound spectra.....	4
4.4 Method of comparison	4
4.5 Calculation of spectrum adaptation terms	8
5 Statement of results	9
5.1 General.....	9
5.2 Statement of performance of building elements.....	9
5.3 Statement of requirements and of performance of buildings	10
Annex A (informative) Use of spectrum adaptation terms	11
Annex B (informative) Terms and spectra for an enlarged frequency range	13
Annex C (informative) Examples of the calculation of single-number quantities and spectrum adaptation terms	16
Annex D (normative) Single-number rating for improvement of sound reduction index by linings	19
Annex E (normative) Standard basic elements for measuring the improvement of airborne sound insulation by linings	21
Bibliography	26

<https://standards.iteh.ai/catalog/standards/iso/d1c7e1ff-4ebc-4f02-a5a4-df4da2d54e7f/iso-717-1-2020>

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 126, *Acoustic properties of building elements and of buildings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 717-1:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- ISO 10140-1:2016, G.6 relocated into this document;
- ISO 10140-5:2010, Annex B relocated into this document;
- references updated.

A list of all parts in the ISO 717 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Methods of measurement of airborne sound insulation of building elements and in buildings have been standardized e.g. in ISO 10140-2 and ISO 16283-1. The purpose of this document 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.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 717-1:2020](https://standards.iteh.ai/catalog/standards/iso/d1c7e1ff-4ebc-4f02-a5a4-df4da2d54e7f/iso-717-1-2020)

<https://standards.iteh.ai/catalog/standards/iso/d1c7e1ff-4ebc-4f02-a5a4-df4da2d54e7f/iso-717-1-2020>