INTERNATIONAL STANDARD

ISO 10534-2

First edition 1998-11-15

Acoustics — Determination of sound absorption coefficient and impedance in impedance tubes —

Part 2:

Transfer-function method

Acoustique — Détermination du facteur d'absorption acoustique et de l'impédance des tubes d'impédance —

Partie 2: Méthode de la fonction de transfert



ISO 10534-2:1998(E)

Contents		Page
1	Scope	1
2	Definitions and symbols	1
3	Principle	3
4	Test equipment	3
5	Preliminary test and measurements	7
6	Test specimen mounting	8
7	Test procedure	9
8	Precision	13
9	Test report	14
Ann	exes	
Α	Preliminary measurements	15
В	Procedure for the one-microphone technique	20
С	Pressure-release termination of test sample	21
D	Theoretical background	22
Е	Error sources	24
F	Determination of diffuse sound absorption coefficient $\alpha_{\rm St}$ of locally reacting absorbers from the results of this part of ISO 10534	
G	Bibliography	27

© ISO 1998

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization Case postale 56 • CH-1211 Genève 20 • Switzerland Internet iso@iso.ch

Printed in Switzerland

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.

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.

International Standard ISO 10534-2 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

ISO 10534 consists of the following parts, under the general title Acoustics — Determination of sound absorption coefficient and impedance in impedance tubes:

- Part 1: Method using standing wave ratio
- Part 2: Transfer-function method

Annnexes A to C form an integral part of this part of ISO 10534. Annexes D to G are for information only.