

Australian/New Zealand Standard™

Acoustics—Hearing protectors



Standards Australia



STANDARDS
NEW ZEALAND
Te Kaitiaki Takekōwhiri

AS/NZS 1270:2002

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee AV-003, Acoustics, Human Effects. It was approved on behalf of the Council of Standards Australia on 30 November 2001 and on behalf of the Council of Standards New Zealand on 3 December 2001. It was published on 18 January 2002.

The following interests are represented on Committee AV-003:

Association of Australian Acoustical Consultants
Association of Consulting Engineers, Australia
Australian Acoustical Society
Australian Chamber of Commerce and Industry
Australian Hearing
Australian and New Zealand Environment and Conservation Council
Consumers Federation of Australia
Department of Labour, New Zealand
Institute of Marine Engineers, Australia/New Zealand Division
Institution of Engineers Australia
New South Wales Nurses Association
New South Wales Rural Fire Service
New Zealand Audiological Society
Royal Institution of Naval Architects, Australia
Safety Institute of Australia
Victorian WorkCover Authority
WorkCover N.S.W.
WorkSafe, Western Australia

Additional Interests participating in the preparation of this Standard:

University of Western Sydney

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

Australian/New Zealand Standard™

Acoustics—Hearing protectors

Originated as AS 1270—1975.
Previous edition AS/NZS 1270:1999
Fifth edition 2002.

COPYRIGHT

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 4261 0

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee AV-003, Acoustics, Human Effects, to supersede AS/NZS 1270:1999, *Acoustics—Hearing protectors*.

The major changes from the 1999 edition are the revision of the physical test requirements (Section 3) and the addition of guidance for testing specialist devices (Section 5). The method for the measurement of the real-ear attenuation of hearing protectors (Section 4) is unchanged from the 1999 edition.

The physical test requirements specified in this Standard represent a compromise between the extensive physical testing of hearing protectors required by European Standards and the absence of physical test requirements in United States Standards. The test regime specified in this Standard comprises a practical, cost-effective approach that seeks to ensure that hearing protectors are sufficiently robust to maintain their acoustic performance when in use.

In the interests of consistency, the European test procedures and related requirements have been adopted for physical tests that are common to this Standard and the corresponding draft European Standards, namely, prEN 13819.1:1999, *Hearing protectors—Testing, Part 1: Physical test methods* and prEN 352:1999, *Hearing protectors—General requirements*. This Standard includes one test not currently included in the European Standards, namely, the dry heat (50°C) test. This test was judged applicable to Australian and New Zealand conditions. One physical test has been added in this edition of the Standard, namely, the headband flexing test required by the European Standards.

In response to the increasing numbers of specialist hearing protectors available to users, guidance for testing such devices is provided in this edition. Specialist hearing protectors offer some method in addition to or other than a simple blocking of the sound transmission. Examples of such devices include level-dependent earmuffs and noise cancelling headsets. Currently there is no recognized procedure for the testing of these devices in their operating state. However, recommendations are given for undertaking passive testing. Once appropriate tests for devices in their operating state have been developed, this Standard will be revised accordingly.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of the Standard. An ‘informative’ appendix is only for information and guidance.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	4
1.2 APPLICATION	4
1.3 REFERENCED DOCUMENTS.....	4
1.4 DEFINITIONS.....	4
SECTION 2 GENERAL REQUIREMENTS	
2.1 DESIGN AND CONSTRUCTION	6
2.2 MATERIALS.....	6
2.3 WEARER INFORMATION	6
2.4 MARKING	7
SECTION 3 PERFORMANCE	
3.1 PHYSICAL REQUIREMENTS.....	9
3.2 TEST PROCEDURES	9
SECTION 4 METHOD FOR MEASUREMENT OF THE REAL-EAR ATTENUATION OF HEARING PROTECTORS	
4.1 SCOPE OF SECTION	17
4.2 PHYSICAL REQUIREMENTS OF THE TEST FACILITY	17
4.3 TEST SUBJECTS	21
4.4 PRODUCT SAMPLES	23
4.5 TEST PROCEDURE	24
4.6 COMPUTATION OF REAL-EAR ATTENUATION.....	27
4.7 COMPUTATION OF CLASS OF HEARING PROTECTOR.....	27
4.8 TEST REPORT.....	27
SECTION 5 TESTING OF SPECIALIST AND OTHER DEVICES.....	29
APPENDICES	
A CALCULATION OF SLC_{80} AND CLASS OF HEARING PROTECTOR	30
B QUALITY CONTROL TESTS.....	32
C COUNTERBALANCING.....	33

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-