



Built-in components for masonry construction

Part 2: Connectors and accessories

STANDARDS
Australia



Currently in preview, click buy full version

AS 2699.2:2020

This Australian Standard® was prepared by BD-028, Masonry Wall Ties and Accessories. It was approved on behalf of the Council of Standards Australia on 2 June 2020.

This Standard was published on 12 June 2020.

The following are represented on Committee BD-028:

- Australasian Corrosion Association
- Australian Industry Group
- Australian Institute of Building Surveyors
- Australian Stainless Steel Development Association
- Australian Steel Institute
- Bureau of Steel Manufacturers of Australia
- Concrete Masonry Association of Australia
- Galvanizers Association of Australia
- Housing Industry Association
- Materials Australia
- Think Brick Australia
- University of Newcastle

This Standard was issued in draft form for comment as DR AS 2699.2:2019

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au

ISBN 978 1 76072 872 4



Built-in components for masonry construction

Part 2: Connectors and accessories

First published in Australia as AS INT 325—1953.
Revised and redesignated as AS 2975—1987.
First published in New Zealand as NZS 4210:1989.
AS 2975—1987 and part of NZS 4210:1989 jointly revised and redesignated
AS/NZS 2699.2:2000.
AS/NZS 2699.2:2000 revised and redesignated as AS 2699.1:2020.

COPYRIGHT

All rights reserved
© Standards Australia Limited 2020

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, unless otherwise permitted under the Copyright Act 1968 (Cth).

Preface

This Standard was prepared by the Standards Australia Committee, BD-028, Masonry Components and Accessories, to supersede AS/NZS 2699.2—2000.

This Standard is the second part of a three-part series on masonry wall ties, connectors and accessories, and lintels and shelf angles. The series comprises the following:

AS 2699.1, *Built-in components for masonry construction, Part 1: Wall ties*

AS 2699.2, *Built-in components for masonry construction, Part 2: Connectors and accessories*

AS 2699.3, *Built-in components for masonry construction, Part 3: Lintels and shelf angles (durability requirements)*

The objective of this Standard is to provide manufacturers with specifications for corrosion resistance and tests for structural serviceability of connectors and accessories when built into masonry.

The types and spacings of connectors and accessories necessary to meet design requirements are specified in AS 3700, *Masonry structures*, and AS 4773.1, *Masonry in small buildings, Part 1: Design* and, AS 4773.2, *Masonry in small buildings, Part 2: Construction*.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

Notes to clauses in this Standard are for information and guidance only and conformance with them is not a requirement of the Standard.

This Standard includes a commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by “C” preceding the clause number and is printed in italics in a box. The commentary is for information and guidance and does not form part of the Standard.

Contents

Preface	ii
Section 1 Scope and general	1
1.1 Scope.....	1
1.2 Normative references.....	2
1.3 Terms and definitions.....	2
1.4 Product conformity evaluation.....	5
1.5 New technologies.....	7
Section 2 Performance criteria	7
2.1 Scope of section.....	7
2.2 Aim.....	7
2.3 Durability.....	7
2.3.1 General.....	7
2.3.2 Damage.....	7
2.3.3 Classification of materials.....	7
2.3.4 Durability criteria for connectors and accessories.....	7
2.3.5 Alternative materials.....	8
2.3.6 Galvanic and chemical compatibility criteria for components and fasteners.....	8
2.4 Resistance to water transfer.....	8
2.5 Embedment, movement and tolerance.....	8
2.6 Structural performance.....	9
Section 3 Materials	10
3.1 Material selection.....	10
3.2 Alternative materials.....	11
Section 4 Identification markings	13
4.1 Component marking.....	13
4.2 Package marking.....	13
Section 5 Testing	14
5.1 Availability of test reports.....	14
5.2 Testing and test reports.....	14
5.2.1 Minimum requirements for test reports.....	14
5.2.2 Testing of components.....	15
Appendix A (normative) Method for determining the coating thickness of galvanized components	16
Appendix B (normative) Product conformity	19
Appendix C (informative) Purchasing guidelines	22
Appendix D (informative) Typical relationship of durability class to atmospheric corrosivity category	24
Appendix E (informative) Tests to identify stainless steel grades	27
Appendix F (normative) Structural performance test methods	29
Appendix G (normative) Method of test for resistance to water transfer	38
Bibliography	43

NOTES

Currently in preview, click buy full version

Australian Standard®

Built-in components for masonry construction

Part 2: Connectors and accessories

Section 1 Scope and general

1.1 Scope

This Standard specifies requirements for connectors and accessories built into masonry, including:

- (a) masonry anchors;
- (b) masonry connectors;
- (c) masonry components other than wall ties;
- (d) tie-downs in masonry;
- (e) bolts and fixings in masonry;
- (f) bed-joint mesh in masonry; and
- (g) all accessories for masonry construction other than:
 - (i) wall ties that are covered by AS 2699.1;
 - (ii) lintels and shelf angles that are covered by AS 2699.3;
 - (iii) damp proof courses and flashing that are covered by AS/NZS 2904 and AS 3700;
 - (iv) termite protection that is covered by AS/NZS 3660 series; and
 - (v) mullions are covered by AS 3700.

NOTE 1 Bed-joint mesh is fabric laid in masonry bed joints as a tying material. This item does not include structural reinforcement in the bed joints of reinforced masonry.

NOTE 2 The design and installation of connectors and accessories are specified in AS 3700, AS 4773.1 (design) and AS 4773.2 (construction).

The requirements for connectors and accessories specified in this Standard cover —

- (A) durability — materials specifications and test methods; and
- (B) structural — test methods only.

NOTE 3 The durability classifications employed in this Standard are compatible with the environments specified in AS 3700, AS 4773.1, AS 4773.2, ISO 9223 and AS 4312—2008.

Because of the wide variety of connectors and accessories and their diverse applications, this Standard does not provide specifications for structural performance parameters. Test methods for these parameters are given for the guidance of manufacturers, designers and purchasers.

NOTE 4 Specifications for structural performance of components may be nominated by manufacturers, or negotiated between manufacturers, suppliers, designers and purchasers.

This Standard applies to connectors and accessories used in masonry described in AS 3700, AS 4773.1 and AS 4773.2.