

Australian Standard™

Concrete structures for retaining liquids



S t a n d a r d s Australia

This Australian Standard was prepared by Committee CE-022, Concrete Structures for Retaining Liquids. It was approved on behalf of the Council of Standards Australia on 17 November 2000 and published on 13 March 2001.

The following interests are represented on Committee CE-022:

Australian Pre-mixed Concrete Association
Institution of Engineers Australia
University of Queensland
Water Services Association of Australia

Additional interests participating in the preparation of this Standard:

Association of Consulting Engineers Australia
Australian Chamber of Commerce and Industry
Australian Post Tensioning Association
Australian Water and Wastewater Association
Brisbane City Council
Department of Public Works and Services N.S.W.
Melbourne Water
National Precast Concrete Association Australia
NSW Department of Land and Water Conservation
Swimming Pool and Spa Association of N.S.W.
Sydney Water Corporation
University of New South Wales
Water Corporation Western Australia

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 Standards may also be withdrawn.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 Standards can be found by visiting the Standards Australia web site at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.com.au, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

Australian Standard™

Concrete structures for retaining liquids

Originated as AS 3735—1991.
Second edition 2001.

COPYRIGHT

© Standards Australia International

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.

Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 3714 5

PREFACE

This Standard was prepared by the Standards Australia Committee CE-022, Concrete Structures for Retaining Liquids, to supersede AS 3735—1991.

The objective of this standard is to provide designers of reinforced concrete structures used for retaining liquids at ambient temperatures with specifications for design and installation.

For structures that specifically relate to concrete structures used for retaining liquids at ambient temperature, this Standard supplements and takes precedence over the requirements of AS 3600, Concrete structures.

Statements expressed in mandatory terms in notes to tables are deemed to be requirements of this Standard.

This draft Standard has been prepared from the previous edition of AS 3735—1991. The Standard is limited to concrete with a concrete stress limited in the range of 20 MPa to 50 MPa at 28 days.

A Commentary, published as Supplement No. 1 to AS 3735, provides background information and explanation on the application of this Standard.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE AND APPLICATION	4
1.2 REFERENCED DOCUMENTS	5
1.3 DEFINITIONS	5
1.4 NOTATION	5
1.5 USE OF ALTERNATIVE MATERIALS OR METHODS	6
1.6 DRAWINGS AND SPECIFICATIONS	7
 SECTION 2 LOADS AND LOAD COMBINATIONS	
2.1 GENERAL	8
2.2 LOADS AND OTHER ACTIONS	8
2.3 STABILITY DESIGN	10
2.4 LOAD COMBINATIONS FOR SERVICEABILITY	10
 SECTION 3 DESIGN FOR SERVICEABILITY AND STRENGTH	
3.1 GENERAL	11
3.2 REINFORCED CONCRETE	11
3.3 PRESTRESSED CONCRETE	13
 SECTION 4 DESIGN FOR DURABILITY	
4.1 GENERAL	15
4.2 EXPOSURE CLASSIFICATION	15
4.3 REQUIREMENTS FOR CONCRETE	16
4.4 REQUIREMENTS FOR COVER TO REINFORCEMENT (BARS AND TENDONS)	16
4.5 DURABILITY OF METAL FIXTURES IN CONTACT WITH CONCRETE	18
4.6 DURABILITY OF WATERSTOPS, SEALANTS AND OTHER ASSOCIATED ITEMS	18
 SECTION 5 MATERIAL AND CONSTRUCTION REQUIREMENTS	
5.1 GENERAL	19
5.2 CONCRETE	19
5.3 REINFORCEMENT	19
 SECTION 6 JOINTS, WATERSTOPS, JOINT FILLERS, AND SEALANTS	
6.1 JOINTS	20
6.2 WATERSTOPS	21
6.3 JOINT FILLERS	21
6.4 SEALANTS	21
6.5 CONTAMINATION OF WATER	21
 SECTION 7 TESTING	
7.1 GENERAL	22
7.2 TESTING FOR LIQUID-TIGHTNESS	22
7.3 TESTING OF LIQUID-RETAINING STRUCTURES	22
7.4 TESTING OF ROOFS	22

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](#)
-