

Australian Standard™

Refrigerated display cabinets

Part 4: General test conditions

This Australian Standard was prepared by Committee ME/8, Refrigerated Display Cabinets. It was approved on behalf of the Council of Standards Australia on 28 April 2000 and published on 10 August 2000.

The following interests are represented on Committee ME/8:

Australian Food and Grocery Council
Australian Retailers Association
Commercial Refrigeration Manufacturers Association of Australia
Food Science Australia
New South Wales Health Department

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 Standards may also be withdrawn.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™

Refrigerated display cabinets

Part 4: General test conditions

Originated as AS B220—1966.
Previous edition AS 2605—1983.
Revised and redesignated AS 1731.4—2000.

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 3410 3

PREFACE

This Standard was prepared by Standards Australia Committee ME/8, Refrigerated Display Cabinets, to supersede (in part) AS 1731—1983, *Frozen food retail cabinets* and AS 2605—1983, *Freezer test packages*.

The Scope of the original Standard has been extended to include requirements for retail chiller cabinets as well as retail freezer cabinets. This Standard is based on British Standard BS EN 441:1994, *Refrigerated display cabinets* (Part 4).

This Standard is Part 4 of a series of Standards on refrigerated display cabinets, as follows:

AS

1731	Refrigerated display cabinets
1731.1	Part 1: Terms and definitions
1731.2	Part 2: General mechanical and physical requirements
1731.3	Part 3: Linear dimensions, areas and volumes
1731.4	Part 4: General test conditions
1731.5	Part 5: Temperature test
1731.6	Part 6: Classification according to temperatures
1731.7	Part 7: Defrosting test
1731.8	Part 8: Water vapour condensation test
1731.9	Part 9: Electrical energy consumption test
1731.10	Part 10: Test for absence of odour and taste
1731.11	Part 11: Installation, maintenance and user guide
1731.12	Part 12: Measurement of the heat extraction rate of the cabinets when the condensing unit is remote from the cabinet

The objective of this series of Standards is to provide standardized construction requirements and performance assessment procedures for refrigerated display cabinets for use by manufacturers, suppliers, purchasers, operators and regulators of these systems.

CONTENTS

	<i>Page</i>
1 SCOPE	3
2 REFERENCED DOCUMENTS	3
3 GENERAL TEST CONDITIONS	3
4 TESTING EQUIPMENT	4
5 PREPARATION OF TEST CABINET AND GENERAL INFORMATION ON TEST PROCEDURES	13
6 TEST REPORT	14

STANDARDS AUSTRALIA

Australian Standard
Refrigerated display cabinets

Part 4: General test conditions

1 SCOPE

1.1 Scope of Standard.

This Standard specifies terminology, general mechanical and physical requirements, test conditions as well as installation and maintenance, including a user's guide, for refrigerated display cabinets for the sale or display, or both, of food products.

This Standard does not cover refrigerated vending machines, cabinets intended for use in catering and similar non-retail applications, or food service cabinets.

1.2 Scope of Part 4

This Part of AS 1731 specifies general conditions for testing refrigerated display cabinets.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 1731 Refrigerated display cabinets
- 1731.3 Part 3: Linear dimensions, areas and volumes
- 1731.5 Part 5: Temperature test
- 1731.7 Part 7: Defrosting test
- 1731.8 Part 8: Water vapour condensation test
- 1731.9 Part 9: Electrical energy consumption test
- 1731.10 Part 10: Test for the absence of odour and taste

AS/NZS

- 1677 Refrigerating systems
- 1677.1 Part 1: Refrigerant classification

ANSI/ASHRAE

- 72 Method of testing open refrigerators for food stores

3 GENERAL TEST CONDITIONS

3.1 General

General test conditions deal with the measurement of the following characteristics:

- (a) Temperature (see AS 1731.5).
- (b) Defrosting (see AS 1731.7).
- (c) Water vapour condensation (see AS 1731.8).
- (d) Electrical energy consumption (see AS 1731.9).
- (e) Physical dimensions (see AS 1731.3).
- (f) Absence of odour and taste (see AS 1731.10).

The first five measurements shall be made in the test room (see Clause 4.1).

NOTE: The first four measurements should preferably be made simultaneously.