

Australian Standard™

**Refrigerated display cabinets**

**Part 8: Water vapour condensation test**



This Australian Standard was prepared by Committee ME-008, Refrigerated Display Cabinets. It was approved on behalf of the Council of Standards Australia on 26 September 2003.

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The following are represented on Committee ME-008:

Australian Greenhouse Office  
Australian Retailers Association  
Commercial Refrigeration Manufacturers Association of Australia  
Food Science Australia  
Institution of Engineers Australia  
Refrigeration Air Conditioning Companies Association

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## Refrigerated display cabinets

### Part 8: Water vapour condensation test

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## PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee ME-008, Refrigerated Display Cabinets, to supersede AS 1731.8—2000, *Refrigerated display cabinets, Part 8: Water vapour condensation test*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

*This Standard incorporates Amendment No. 1 (December 2005). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

This Standard is based on International Standard prEN ISO 23953-2:2003, *Refrigerated display cabinets, Part 2: Classification requirements and test conditions*.

This Standard is Part 8 of a series of Standards for 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 (this Standard)
- 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 heat extraction rate of the cabinets when the condensing unit is remote from the cabinet
- 1731.13 Part 13: Test report
- 1731.14 Part 14: Minimum energy performance standard (MEPS) requirements

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**Refrigerated display cabinets**

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Part 8: Water vapour condensation test

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## 1 SCOPE

### 1.1 Scope of Standard

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This Standard specifies terminology, general mechanical and physical requirements, test conditions as well as installation and maintenance, for commercial refrigerators and freezers used for the sale or display of food products including beverages.

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

### 1.2 Scope of Part 8

This Part of AS 1731 specifies the procedure to determine the extent of condensation of water on the internal and external surfaces of refrigerated display cabinets, when tested under specified ambient conditions.

## 2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 1731 Refrigerated display cabinets
- 1731.4 Part 4: General test conditions
- 1731.5 Part 5: Temperature test
- 1731.13 Part 13: Test report

## 3 OBJECTIVE

The objective of this Standard is to establish a method for testing water vapour condensation in display cabinets to be used by manufacturers, suppliers, purchasers, operators and regulators of these systems.

## 4 TEST PROCEDURE

### 4.1 Test room standard climates

For ambient temperature and relative humidity see AS 1731.4.

### 4.2 Test conditions

Locate and load the cabinet as for the temperature test (see AS 1731.5), operate it in accordance with the manufacturer's instructions at the conditions appropriate to the test room climate class for which it is intended, then operate it for at least 24 h after stable operating conditions have been reached (see AS 1731.4) or during the operating period of cabinets intended to be switched off at night (see AS 1731.5).

NOTE: The temperature test may be carried out at the same time.