

Australian Standard™

**Refrigerated display cabinets**

**Part 8: Water vapour condensation test**

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.

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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

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Australian Standard™

## Refrigerated display cabinets

### Part 8: Water vapour condensation test

Originated as AS B220—1966.  
Previous edition AS 1731—1983.  
Revised and redesignated in part as AS 1731.8—2000.

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## 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*.

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 8).

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
- 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

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

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**Australian Standard**  
**Refrigerated display cabinets**  

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Part 8: Water vapour condensation test  

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## 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 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

## 3 TEST PROCEDURE

### 3.1 Test room standard climates

For ambient temperature and relative humidity see AS 1731.4.

### 3.2 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.

If anti-condensation heaters, which can be switched on and off by the user, are provided, they shall not be switched on. If, however, running water is evident when the cabinet is subjected to the water vapour condensation test, the test shall be repeated with the anti-condensation heaters switched on.

This test shall be carried out without any night covers in place.