

AS 60068.2.1:2023



STANDARDS
Australia



Environmental testing

Part 2.1: Tests — Test A: Cold (IEC 60068-2-1:2007 (ED. 6.0) MOD)



AS 60068.2.1:2023

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- Australian Industry Group
- Better Regulation Division (Fair Trading, SafeWork NSW, TestSafe)
- Consumer Electronics Suppliers Association
- Electrical Regulatory Authorities Council, Australia
- Energy Networks Australia
- Master Electricians Australia
- National Association of Testing Authorities Australia
- National Electrical and Communications Association
- VIPAC (Testing Interests Australia)

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Preface

This Standard was prepared by the Standards Australia Committee EL-026, Protective Enclosures and Environmental Testing for Electrical/Electronic Equipment, to supersede AS 60068.2.1:2003.

The objective of this document is to specify cold tests applicable to both non heat-dissipating and heat-dissipating specimens. For non-heat-dissipating specimens, Tests Ab and Ad do not deviate essentially from earlier issues. Test Ae has been added primarily for testing equipment that requires being operational throughout the test, including the conditioning periods.

The object of the cold test is limited to the determination of the ability of components, equipment or other articles to be used, transported or stored at low temperature. Cold tests covered by this document do not enable the ability of specimens to withstand or operate during the temperature variations to be assessed. In this case, it would be necessary to use AS 60068.2.14:2023.

The cold tests are subdivided as follows:

- (a) Cold tests for non-heat-dissipating specimens: with gradual change of temperature, Ab.
- (b) Cold test for heat-dissipating specimens: with gradual change of temperature, Ad.
- (c) Cold test for heat-dissipating specimens: with gradual change of temperature, specimen powered throughout, Ae.

The procedures given in this document are normally intended for specimens that achieve temperature stability during the performance of the test procedure. Temperature chamber(s) are constructed and verified in accordance with specifications IEC 60068-3-5 and IEC 60068-3-7. Further guidance for dry heat and cold tests can be found in IEC 60068-3-1 and general guidance in AS 60068.1:2023.

This sixth edition deals with cold tests applicable both to non-heat-dissipating and heat-dissipating specimens.

This document is an adoption with national modifications, and has been reproduced from, IEC 60068-2-1:2007, *Environmental testing – Part 2-1: Tests – Test A: Cold*. The modifications are additional requirements and are set out in [Appendix ZZ](#), which has been added at the end of the source text.

[Appendix ZZ](#) lists the modifications to IEC 60068-2-1:2007, for the application of this document in Australia.

As this document has been reproduced from an International document, the following apply:

- (a) In the source text “this part of IEC 60068” should read “this document”.
- (b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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

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