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AS 60068.2.10

Australian Standard™

Environmental testing

Part 2.10: Tests—Test J and guidance: Mould growth

Standards Australia

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Australian Chamber of Commerce and Industry

Australian Electrical and Electronic Manufacturers Association

Electrical Compliance Testing Authorities

Electrical Regulatory Authorities Council

Electricity Supply Association of Australia

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Part 2.10: Tests—Test J and guidance: Mould growth

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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. It supersedes AS 1099.2.10—1989, *Basic environmental testing procedures for electrotechnology—Tests—Test J—Mould growth*.

The objective of this Standard is to provide the electrotechnology industry with a complete set of environmental test procedures published as a series under AS 60068 *Environmental testing*. This Standard is Part 2.10 of that series.

This Standard is identical with, and has been reproduced, from IEC 60068-2-10:1988, *Environmental testing – Part 2: Tests – Test J and guidance: Mould growth*.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text ‘this international standard’ should read ‘this Australian Standard’.

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In this Standard, the following print types are used:

– requirements proper: in arial type;

– *test specifications: in italic type;*

– explanatory matter: in smaller arial type.

Any international Standard referenced should be replaced by an equivalent Australian Standard when one is available. The availability of equivalent Australian Standards can be determined either from the Standards Australia catalogue or from the Standards Australia website (www.standards.com.au).

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NOTES

STANDARDS AUSTRALIA

Australian Standard

Environmental testing
Part 2.10: Tests—Test J and guidance: Mould growth

1 General

1.1 This test covers the inoculation of assembled specimens with a selection of mould spores followed by a period of incubation under conditions which promote spore germination and the growth of mould.

Two variations of the test are given. Variant 1 specifies direct inoculation of the specimen with the mould spores whereas variant 2 specifies the preconditioning of the test specimen with nutrients which support mould growth.

1.2 When assembled, specimens must operate where they will be exposed to airborne mould spores, and where climatic conditions will be conducive to the growth of moulds; this test procedure may be used to assess the extent to which mould will grow and/or the operational deterioration which may be expected from this source.

1.3 It is advisable to use established mycological testing procedures to assess the vulnerability to damage by mould contamination of the constructional materials used, and to use only materials which are immune from serious attack.

1.4 Assembled specimens which do not have to operate under conditions of exposure to mould spores may have to be stored or transported where a temporary exposure is experienced, and in these cases also the test procedure will be found useful.

1.5 Surface contamination in the form of dusts, splashes, condensed volatile nutrients or grease may be deposited upon assembled specimens. This can be brought about by storage and use or transport with the assembled specimens exposed to the atmosphere or handled without protective covering. This surface contamination can cause an increased colonization by fungi and may lead to greater growth and damage. An assessment of the effect of such contamination can be given by the application of test variant 2.

1.6 Where assembled specimens will be protected from such exposure, even though operating in a region where mould spores are abundant, ability to withstand the severe procedure of this test is not necessary.

1.7 Due to the difficulty of maintaining the necessary conditions in a very large chamber, a large composite equipment will normally be tested as a number of sub-units. This will in any case minimize the cost of the test since several sub-units may be so similar in construction that only one of them need be tested.

2 Health hazards to operators

2.1 This test procedure requires the use of viable mould spores and the provision of ambient conditions which promote mould growth.