

AS 1099.2.10—1989  
IEC 68-2-10 (1988)

Australian Standard<sup>®</sup>

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**Basic environmental testing  
procedures for electrotechnology**

**Part 2: Tests  
1099.2.10: Test J—Mould growth**

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[IEC title: Basic environmental testing procedures, Part 2: Tests—  
Test J and guidance: Mould growth]

This Australian Standard was prepared by Committee ET/5, Environmental Testing Procedures. It was approved on behalf of the Council of Standards Australia on 29 January 1989 and published on 21 July 1989.

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The following interests are represented on Committee ET/5:

Aerospace Technologies of Australia  
Confederation of Australian Industry  
Department of Defence  
Department of Housing and Construction  
Electricity Supply Association of Australia  
National Association of Testing Authorities  
Society of Automotive Engineers, Australasia  
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## PREFACE

This Standard was prepared by Standards Australia's Committee on Environmental Testing Procedures to supersede AS 1099.2J—1971, *Basic environmental testing procedures for electrotechnology, Part 2: Tests, Test J—Mould growth*. This edition is identical with and is reproduced from IEC 68-2-10(1988) Fifth Edition *Basic environmental testing procedures, Part 2: Tests—Test J and guidance: Mould growth*.

The object of the test is to investigate unforeseen causes of deterioration in assembled specimens, components or equipment, whether constructed from mould-resistant materials or not. Two variations of the test are given. Variant 1 specifies direct inoculation of the specimen with the mould or spores whereas variant 2 specifies the preconditioning of the test specimen with nutrients which support mould growth.

Mould growth normally occurs on surfaces exposed to air, those materials which absorb or adsorb moisture generally being more subject to attack. Harmful effects of mould growth on electrical or electronic equipment include the lowering of insulation resistance between conductors, variation in frequency or impedance characteristics of electronic circuits, decreases in mechanical strength of materials and changes in other physical properties.

Mycologists and pathologists warn that conducting mould growth tests can be a health hazard unless special precautions are taken. For this reason the Standard contains appendices which list the known health hazards and recommend who should or should not be involved in the tests. Precautions are based on established microbiological techniques making use of specialized equipment and trained personnel. Susceptible persons, i.e. those who are allergic to pollen, dust or animals, asthma sufferers or persons with known lung damage may develop allergies to mould spores. Persons undergoing broad-spectrum antibiotic treatment, or being given immuno-suppressive drugs may prove more susceptible to fungal infection than persons in a normal state of health. Although the hazards involved are regarded as low if the tests are performed as specified, it is recommended that persons in the above categories should not be involved.

For the purpose of this Australian Standard the text of the IEC Publication used herein should be modified as follows:

*Terminology:* The words 'Australian Standard' should replace the words 'International Publication' wherever they appear.

*References:* The references to international Standards should be replaced by references to the appropriate Australian Standards which apply at the time of publication of this Standard.

<i>Reference to IEC Publication</i>		<i>Appropriate Australian Standard</i>	
IEC		AS	
68	Basic environmental testing procedures	1099	Basic environmental testing procedures for electrotechnology
68-1	Part 1: General and guidance	1099.1	Part 1: General
68-2	Part 2: Tests	1099.2	Part 2: Tests

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