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IEC 60068-2-20:1979 and
IEC 60068-2-20:1979 Amdt 2:1979

AS 60068.2.20

Australian Standard™

Environmental testing

Part 2.20: Tests—Test T: Soldering



This Australian Standard was prepared by Committee EL-026, Protective Enclosures and Environmental Testing for Electrical/Electronic Equipment. It was approved on behalf of the Council of Standards Australia on 3 May 2004 and published on 11 June 2004.

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Australian Electrical and Electronic Manufacture's Association
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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.

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 2.20 of that series.

This Standard is identical with, and has been reproduced from, IEC 60068-2-20:1979, *Environmental testing – Part 2-20: Tests—Test T: Soldering* including Amendment 2:1979.

Note concerning clause C.1 of annex C:

‘WW’ is a common designation of very white (pure) colophony that is well known by experts all over the world and used by all suppliers of colophony.

The ‘ball and ring’ method is known and used in laboratories where colophony is tested.

The flow-point (or dropping-point) method, known as the ‘Ubbelohde method’, is known and commonly used in laboratories where colophony is tested. It is a variant of the method of test for the ‘dropping point of lubricating grease’ given in ISO 2176. The ‘Ubbelohde method’ is used mainly for the testing of bitumen.

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- (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’.
- (c) A full point should be substituted for a comma when referring to a decimal marker.
- (d) Any French text on figures should be ignored.

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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STANDARDS AUSTRALIA

Australian Standard

Environmental testing
Part 2.20: Tests—Test T: Soldering**1 Scope**

This standard is applicable to all electrical and electronic components liable to be submitted to the tests described below.

2 Object

To determine the ability of component terminations and printed circuits to wet easily, and to check that the component itself will not be damaged by assembly soldering processes.

3 Terminology**3.1 Colophony**

A natural resin obtained as the residue after removal of turpentine from the oleo-resin of the pine tree, consisting mainly of abietic acid and related resin acids, the remainder being resin acid esters.

NOTE – "Rosin" is a synonym for colophony, and is deprecated because of the common confusion with the generic term "resin".

3.2 Contact angle

In general the angle enclosed between two planes, tangent to a liquid surface and a solid/liquid interface at their intersection (see figure 1). In particular the contact angle of liquid solder in contact with a solid metal surface.

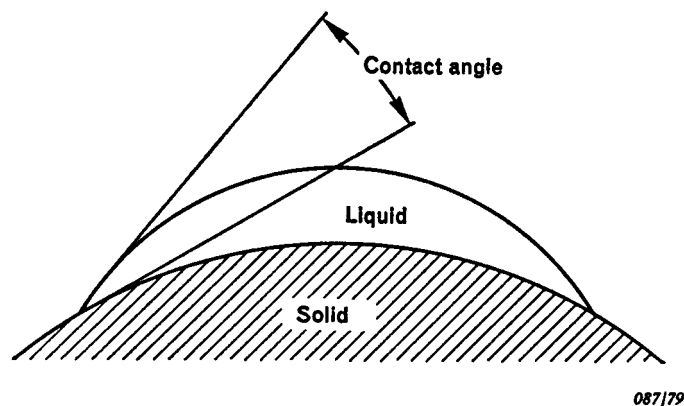


Figure 1