



JAPANESE
INDUSTRIAL
STANDARD

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Japanese Standards Association

JIS C 0024 : 2000

(IEC 60068-2-52 : 1996)

(RCJ/JSA)

**Environmental testing—
Part 2 : Tests—
Test Kb : Salt mist, cyclic
(sodium chloride solution)**

The code number of this Standard
changed from JIS C 0024 to the
following from 20 March 2004.

JIS C 60068-2-52:2000

ICS 19.040; 19.080

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endurance testing, salts, water, sprays, corrosion tests

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee, as the result of proposal for revision of Japanese Industrial Standard submitted by the Reliability Center for Electronic Components of Japan (RCJ)/the Japanese Standards Association (JSA) with the draft being attached, based on the provision of article 12 Clause 1 of the Industrial Standardization Law. Consequently **JIS C 0024 : 1989** is replaced with this Standard.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Environmental testing— Part 2 : Tests—Test Kb : Salt mist, cyclic (sodium chloride solution)

Introduction This Japanese Industrial Standard has been prepared based on **IEC 60068-2-52** *Environmental testing Part 2 : Tests—Test Kb : Salt mist, cyclic (sodium chloride solution)* published in 1996 as the second edition, without modification in the technical contents.

In this Standard the portions underlined with dots are the matters not stated in the original International Standard.

The **IEC** Standard number is based on the new numbering system of **IEC** Standards put in force on January 1st 1997, and the Standard published before the said date is numbered by adding 60000 to the former number. This is only the change in the numbering system and the contents remain unchanged.

1 Scope This Standard is intended for application to electrical, electronic and other components or equipment designed to withstand a salt-laden atmosphere, depending on the chosen severity. Salt can degrade the performance of parts manufactured using metallic and/or non-metallic materials.

The mechanism of salt corrosion in metallic materials is electrochemical, whereas the degradation effects experienced on non-metallic materials are caused by complex chemical reactions of the salts with the materials involved. The rate at which corrosive action takes place is dependent, to a large extent, on the supply of oxygenated salt solution to the surface of the test specimen, the temperature of the specimen and the temperature and humidity of the environment.

Apart from the corrosive effects, this test may be used to indicate deterioration of some non-metallic materials by assimilation of salts. In the following test methods, the period of spraying with the relevant salt solution is sufficient to wet the specimen thoroughly. Because this wetting is repeated after intervals of storage under humid conditions [severities (1) and (2) and—in some cases severities (3) to (6)]—supplemented by storage under a standard atmosphere for testing, it goes some way to reproducing the effects of natural environments.

Severities (1) and (2) are intended to be used for testing products which are used in a marine environment, or in close proximity to the sea. Severity (1) should be used to test products which are exposed to the environment for much of their operational life (e.g. ship radar, deck equipment). Severity (2) should be used to test products which may be exposed to the marine environment from time to time but will normally be protected by an enclosure (e.g. navigational equipment which will normally be used on the bridge or in a control room).

Additionally, severities (1) and (2) are commonly used as a general corrosion test in component quality assurance procedures.

Severities (3) to (6) are intended for products where, under normal use, there is a frequent change between salt-laden and dry atmosphere, e.g. automobiles and their parts.