

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

EESTI STANDARDI EESSÕNA

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ICS 19.040

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English Version

**Environmental testing - Part 2: Tests - Test Kb: Salt mist, cyclic
(sodium chloride solution)
(IEC 60068-2-52:2017)**

Essais d'environnement - Partie 2: Essais - Essai Kb:
Brouillard salin, essai cyclique (solution de chlorure de
sodium)
(IEC 60068-2-52:2017)

Umweltprüfungen - Teil 2: Prüfverfahren - Prüfung Kb:
Salznebel, zyklisch (Natriumchloridlösung)
(IEC 60068-2-52:2017)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

The text of document 104/751/FDIS, future edition 2 of IEC 60068-2-52, prepared by IEC/TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60068-2-52:2018.

The following dates are fixed:

- latest date by which the document has to be (dop) 2018-09-12
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2020-12-12
standards conflicting with the
document have to be withdrawn

This document supersedes EN 60068-2-52:1996.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	-	Environmental testing -- Part 1: General and guidance	EN 60068-1	-
IEC 60068-2-78	-	Environmental testing -- Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	-
ISO 9227	-	Corrosion tests in artificial atmospheres - Salt spray tests	EN ISO 9227	-

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INTRODUCTION

The mechanism of corrosion on metallic materials in a chloride-containing atmosphere 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(s), the temperature of the test specimen(s) and the temperature and humidity of the environment.

Apart from the corrosive effects, this cyclic salt mist test may be used to indicate deterioration of some non-metallic materials by assimilation of salts. In the various test methods described in this document, the period of spraying with the relevant salt solution is sufficient to wet the test specimen(s) thoroughly. Because this wetting is repeated after intervals of storage under humid conditions supplemented by storage under a standard atmosphere, it goes some way to reproducing the effects of natural environments.

Furthermore, considering natural environments for corrosion on metallic materials, neutral or acidified salt solution spray, humid, and dry conditions are also important factors as a cyclic corrosion test. Each condition is repeated after intervals of other conditions in different combinations to achieve corrosion on metallic materials and to get acceleration of corrosion.

The tests described in this document are accelerated compared with most expected conditions of use. As a result, it may be difficult to establish an overall acceleration factor for all kinds of test specimens. This also means that it is often not possible to use results gained from these tests as a comparative guide to the long-term behaviour of different coating systems since the corrosion stress during these tests differs significantly from the corrosion stresses encountered during use. Nevertheless, the method described gives a means of checking that the comparative quality of a metallic material is maintained.

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