

JIS

JAPANESE INDUSTRIAL STANDARD

Testing methods for electric conductivity in highly purified water

JIS K 0552—1994

Translated and Published

by

Japanese Standards Association

Printed in Japan

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Not for Resale, 07/29/2014 22:41:18 MDT

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Testing methods for electric conductivity
in highly purified water

K 0552-1994

1. Scope This Japanese Industrial Standard specifies the testing methods for electric conductivity in highly purified water.

Remarks 1. The standards cited in this Standard are shown in Attached Table 1.

2. Traditionally, in the tests of water, μS and $\mu\text{S}/\text{cm}$ have been used as units of electric conductance and conductivity, respectively, and cm^{-1} has been used as unit of a cell constant.

In the case of electric conductivity, if the value expressed in $\mu\text{S}/\text{m}$ is multiplied by 0.01, the value expressed in $\mu\text{S}/\text{cm}$ can be obtained.

In the case of cell constant, if the value expressed in m^{-1} is multiplied by 0.01, the value expressed in cm^{-1} can be obtained.

3. In this Standard, the units and values given in { } are based on the traditional units, and appended for informative reference.

2. Matters in common The matters in common shall follow JIS K 0050 and JIS K 0101.

Notes, Remarks, and Tables are serially numbered through respective clause.

Remarks: When the electric conductivity in highly purified water is measured, it is very important to pay attention so as not to deteriorate electric conductivity of sample during sampling and procedures for test. For that purpose, it is necessary to minimize dissolving out of impurities into sample and to avoid contact of sample with air by paying attention to the material of introducing pipe and of piping for sampling, the material, shape, and washing method of sample container and detector of conductivity meter.

3. Sampling The method for sampling shall be as follows:

- (1) When sampling is carried out directly from apparatus or piping to make the measurement, wash sufficiently the inside of sample introducing pipe and piping by passing a lot of sample through it and introduce the sample into a flow-through type detector directly while the flow rate and the temperature are controlled.
- (2) When an insertion-into-pipe type detector is used, provide an attaching opening on the piping, and insert directly the detector in the sample running inside the piping.
- (3) At sampling from a container ⁽¹⁾, shield the sample from air by using nitrogen ⁽²⁾, employ a sample path which has been sufficiently washed, and introduce the sample inside of a flow-through type detector while the flow rate and temperature are controlled.