JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS S 3200-7 : 2004

(JSA)

Equipment for water supply service—Test methods of effect to water quality

ICS 13.060.50; 91.140.60

Reference number : **JIS S 3200-7 : 2004 (E)**

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee, as the result of proposal for revision of Japanese Industrial Standard submitted by Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS S 3200-7** : 2000 is replaced with this Standard.

JIS S 3200 consists of the following 7 parts under the general title *Equipment for water supply service*:

Part 1 : Test methods of hydrostatic pressure
Part 2 : Test method of low temperature resistant
Part 3 : Test method of water hammer
Part 4 : Test method of prevention from back current
Part 5 : Test methods of destruction by vacuum pressure
Part 6 : Test methods of durability
Part 7 : Test methods of effect to water quality.

Date of Establishment: 1997-06-20

Date of Revision: 2004-03-20

Date of Public Notice in Official Gazette: 2004-03-22

Investigated by: Japanese Industrial Standards Committee
Standards Board
Technical Committee on Machine Elements

JIS S 3200-7 : 2004, Third English edition published in 2007-07

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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

Contents

		Page
1	Scope	1
2	Normative references	1
3	Definitions	1
4	Items	2
5	Common conditions	5
6	Preparing method of leachate	5
6.1	Reagents	5
6.2	Preparing method	5
7	Preparation of sample liquid	6
7.1	Equipment test	6
7.2	Part test and material test	10
7.3	Storage of sample liquid	10
8	Analytical method	10
9	Correction of analysis result	11
Annex 1 (normative)	Methods for determination of metals	19
Annex 2 (normative)	Method for determination of mercury and its compound	31
Annex 3 (normative)	Methods for determination of selenium and its compound	33
Annex 4 (normative)	Methods for determination of arsenic and its compound	36
Annex 5 (normative)	Methods for determination of cyanide ion and cyanogen chloride	39
Annex 6 (normative)	Methods for determination of anion	44
Annex 7 (normative)	Methods for determination of volatile organic compound	48
Annex 8 (normative)	Method for determination of 1,4-dioxane	54

Annex 9 (normative) Method for determination of formaldehyde 57

Annex 10 (normative) Measuring methods of hardness 61

Annex 11 (normative) Method for determination of evaporation residue 63

Annex 12 (normative) Methods for determination of anionic surfactant and nonionic surfactant 64

Annex 13 (normative) Methods for determination of phenols 70

Annex 14 (normative) Method for determination of organic matters [amount of total organic carbon (TOC)] and organic matters, etc. (consumption of potassium permanganate) 75

Annex 15 (normative) Measuring method of pH 78

Annex 16 (normative) Method for determination of taste 80

Annex 17 (normative) Method for determination of odour 81

Annex 18 (normative) Methods for determination of chromaticity 82

Annex 19 (normative) Methods for determination of turbidity 84

Annex 20 (normative) Measuring method of alkalinity 87

Annex 21 (normative) Measuring methods of residual chlorine 89

Annex 22 (normative) Method for determination of epichlorohydrin 96

Annex 23 (normative) Method for determination of amines 99

Annex 24 (normative) Method for determination of 2,4-toluene diamine and 2,6-toluene diamine 101

Annex 25 (normative) Methods for determination of vinyl acetate 104

Annex 26 (normative) Methods for determination of styrene 107

Annex 27 (normative) Methods for determination of 1,2-butadiene and 1,3-butadiene 108

Equipment for water supply service— Test methods of effect to water quality

1 Scope This Japanese Industrial Standard specifies test methods of evaluating effect to water quality applicable to such equipment for water supply service as valves which include faucets, pressure reducing valves and relief valves, and pipes, fittings, piping units for dwellings, drinking-water coolers, electric storage tank water heaters, gas burning water heaters, oil burning water heaters.

2 Normative references The standards listed in attached table 1 contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) shall be applied.

3 Definitions For the purpose of this Standard, the following definitions shall apply:

a) **leachate** Water specially prepared for performing the test.

b) **equipment test** A test in which the elution operation is performed with leachate on equipment for water supply service.

c) **part test** A test in which the elution operation is performed with leachate on parts in contact with drinking water in the equipment for water supply service.

d) **material test** A test in which the elution operation is performed with leachate on intermediate products (materials) in contact with drinking water in the equipment for water supply service. However, it cannot apply when materials are metals.

e) **blank test** A test in which the operation of the equipment test, part test or material test is performed with leachate and glassware instruments without samples.

f) **sample liquid** The solution obtained by performing the elution treatment in the equipment test, part test or material test.

g) **blank test liquid** The solution obtained by performing the elution treatment in the blank test.

h) **test water** The solution separated from the sample liquid for the analysis.

i) **test liquid** The test water treated in the process of analysis operation.

j) **contact surface area ratio of equipment under test, part under test or material under test** The value obtained by dividing "the surface area of the equipment under test, part under test or material under test of which the portion is in contact with the leachate" by "the leachate volume".

k) **contact surface area ratio of equipment to be evaluated, part to be evaluated or material to be evaluated** The value obtained by dividing "the surface area of the equipment, part or material to be evaluated on the result of the part test or material test, of which the portion is actually in contact with drinking water" by " the volume of the relevant equipment, part or material to be evaluated.