

FOREWORD

JASS stands for the Japan Architectural Standard Specification, established by the Architectural Institute of Japan. Currently it is published in 29 separate volumes, being divided according to type of work. Ever since the first edition was issued in 1953, it has served as a guideline toward assuring quality of buildings and workmanship by maintaining the standard of building construction methods.

The purpose of establishing a standard specification for construction work is to formulate an appropriate construction standard for improving the quality of buildings and rationalizing execution procedures.

While compiling the specifications into a system, the following points were taken into consideration:

- a. The specification is not intended to restrict nor regulate architectural designs and engineering work, but what can be standardized without any problem were standardized as much as possible, so as to ensure a minimum standard of building construction workmanship.
- b. Recent trends in construction techniques have been to concentrate on narrower specializations. Therefore the Specification was formulated with the close cooperation of a number of construction technicians and specialists. Attempts were made to maintain the organic connections among a variety of technical fields, as well as to introduce various specialized techniques to construction practice by means of Specification.
- c. In order to keep up with the progress in technical research and with advance in materials, results obtained from studies were directly linked to practical use, so that such results may be incorporated into the specification as soon as practicable and thereby ensure up-to-date construction technology.

Since the release of the first edition, a number of new materials and new construction methods have been developed. With this as a background, the Specification has been revised several times, but the purpose has remained unchanged. The first English version was published in 1982 based on the 1979 Japanese edition of JASS 5, the second English version being published in 1993 based on the 1993 Japanese edition. This issue is the third English version based on the 2003 Japanese edition.

Although JASS is not a building code, it is treated similarly to a building code, indicating how construction work should be carried out. It would not be an overstatement to say that most of the building construction in Japan today is carried out in accordance with JASS.

In order to make this Specification applicable to individual construction, the Special Provisions have to be formulated. Where a specific expression is necessary, requirements are expressed as "in accordance with the Special Provisions". Section 30, which contains all of the Special Provisions from Section 3 through Section 29, is provided for this purpose.

At the end of the volume is an English-Japanese/Japanese English glossary.

It is with the greatest pleasure of the committee that this English version of JASS 5 is presented. It is hoped that this will assist foreigners in the understanding of reinforced concrete work in Japan.

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Wherever the meaning of the English translation is ambiguous or in contradiction with the original Japanese text, readers are advised to refer to the original text of the specification.

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Architectural Institute of Japan

ANNOTATION ON TRANSLATION

In the process of translating JASS 5 into English, English terms corresponding to some Japanese technical terms cannot be found. Also, because some parts of the specification are based on uniquely Japanese point of view and direct translation from Japanese into English of those parts makes understanding difficult. Therefore, annotation is made on some of the terms.

Architect/Engineer:

Person who supervises the work on behalf of the owner to assure that the work is being carried out in accordance with the contract documents. He may be either an architect or an engineer.

Strength of concrete in structure:

Compressive strength of concrete developing in structures. It is normally expressed as the compressive strength at specified ages, not more than 91 days according to the building code requirement, of specimens sampled from the concrete to be placed on the construction site and cured under thermal and moisture conditions similar to those in the structure.

Quality standard strength:

Compressive strength of concrete required for obtaining the required performance of the structure or member; a strength normally established as a standard of concrete quality to ensure the specified design strength and durability design strength.

Temperature compensated specified strength:

When the anticipated mean air temperature for 28 days after placement of concrete is lower than standard curing temperature of 20°C, the strength added compensatory value to specified design strength to compensate deficiently in strength is called "the temperature compensated specified strength". In this case the target proportioning strength of designed mixture must be determined so that "temperature compensated specified strength" can be assured under standard cured conditions. In other words it is required that even when curing temperatures are different, strength of concrete cured at jobsite must attain the same given level.

Inspection of concrete strength:

In Japan, field inspection of concrete strength is on a dual system: both at the same point of unloading of ready-mixed concrete. One is the inspection carried out to ascertain whether or not the quality of concrete is in conformity with the quality specification given in the purchase order. Test specimens for the inspection are cured under standard curing conditions before being tested. The other is the inspection carried out to ascertain whether or not the placed concrete have attained sufficient strength necessary for structural purpose. Specimens for the inspection are cured in an open-air water bath or under sealed condition at the jobsite before being tested.

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Concrete shop drawing:

Drawings of concrete dimensions based on the design drawings and determined by coordinating them with finishing, mechanical and electrical works.

JASS 1:

Under JASS 1 general provisions are prescribed which are common to other 28 volumes of JASS, such as definitions, treatment of conflicts and ambiguities between drawings and specifications, applications and notifications to be submitted to competent authorities, how an ordinary job-site should be managed and supervised, how construction work should be advanced, what construction records to be maintained, and the substance thereof, etc.

JIS :

"JIS" is the acronym for "Japanese Industrial Standards" established by the government, of which the substance corresponds to those of ISO, ASTM, DIN, BS etc. of the other leading western countries. JIS are voluntary standards for quality and testing methods of industrial products. Divisions of JIS standards are identified by alphabet placed between letters "JIS" and four digits. A partial list is given below :

- A : Civil Engineering and Architecture
- G : Ferrous Materials and Metallurgy
- R : Ceramics (including Cement)
- Z : Fundamental and General

Testing methods and quality standards established under JASS 5 :

Test and quality standards specified under JASS 5 are in general those established under Japanese Industrial Standards(JIS), etc.. However, where appropriate established test methods or quality standards cannot be found, JASS 5 gives those of its own. As APPENDIX there are 7 specially established test methods and quality standards which have the number with the prefix "JASS 5T—" . List of JASS 5T standards is given below.

- JASS 5T-202 Method of Test for Water Soluble Chlorides in Normal Weight Fine Aggregate
- JASS 5T-204 Quality Standard for Artificial Lightweight Aggregate
- JASS 5T-402 Quality Standard for Superplasticizers for Concrete
- JASS 5T-502 Method of Test by Handy Testers for Chloride Content in Fresh Concrete
- JASS 5T-602 Method of Test for Control of Proportioning Strength of Site-Mixed Concrete
- JASS 5T-603 Method of Test for Compressive Strength for Estimating Strength of Concrete
- JASS 5T-604 Method of Test for Evenness of Concrete Finish

Japanese Architectural Standard Specification for Reinforced Concrete Work JASS 5 (2004)

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