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Methods of test for density and water absorption of fine aggregates

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# **Contents**

		Page
Intr	oduction	
1	Scope1	
2	Normative references 1	
3	Apparatus and equipment 1	
4	Sample ————————————————————————————————————	
5 5.1 5.2 5.3	Test methods 3 Density 3 Water absorption 3 Number of tests 3	
6	Calculation	
7	Accuracy4	
8	Test report ····· 4	
Ann	ex JA (informative)	Comparison table between JIS and corresponding International Standard
		Comparison table between previous and current editions of this Standard on technically significant revisions

### **Foreword**

This Japanese Industrial Standard has been revised by the Minister of Land, Infrastructure, Transport and Tourism through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Concrete Institute (JCI) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (JIS A 1109:2006), which has been technically revised.

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NOTE Based on Article 9 of the Supplementary Provisions to the Unfair Competition Prevention Act etc., any submission of proposal, or employment of procedures such as deliberation by the Japanese Industrial Standards Committee under the previous Industrial Standardization Act shall be deemed to have been conducted pursuant to the provision of Article 12, paragraph (1) of the revised Industrial Standardization Act.

# Methods of test for density and water absorption of fine aggregates

JIS A 1109: 2020

#### Introduction

This Japanese Industrial Standard has been prepared based on **ISO 7033**:1987, Edition 1, with some modifications of the technical contents.

The dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA. The comparison table between previous and current editions of this Standard on technically significant revisions is given in Annex JB.

## 1 Scope

This Standard specifies a method for the determination of the density and the water absorption of fine aggregates. The test method for lightweight fine aggregates for structural concrete where aggregates in oven-dry condition are immersed in water for 24 h is specified in **JIS A 1134**.

NOTE The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 7033:1987 Fine and coarse aggregates for concrete—Determination of the particle mass-per-volume and water absorption—Pycnometer method (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

#### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS A 1134 Methods of test for particle density and water absorption of lightweight fine aggregates for structural concrete

JIS A 1158 Method for reducing samples of aggregate to testing size

## 3 Apparatus and equipment

The apparatus and following equipment shall be used.

- **3.1 Scale or balance**, with a weighing capacity of 2 kg or more and a scale interval of 0.1 g or smaller.
- **3.2 Pycnometer** A flask or other suitable vessel of non-water-absorbing material, referred to henceforward as a pycnometer, into which the aggregate test sample can be readily inserted and in which the volume content can be reproduced within  $\pm 0.1$  %. The