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Method of test for alkali-silica reactivity of aggregates by mortar-bar method

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

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Foreword

This translation has been made based on the original Japanese Industrial Standard 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 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 A 1146**:2007 is replaced with this Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

Method of test for alkali-silica reactivity of aggregates by mortar-bar method

1 Scope

This Japanese Industrial Standard specifies the test method (hereafter referred to as mortar-bar method) to judge the alkali-silica reactivity [1)] of aggregates by measuring the length change of mortar-bar. This Standard is not applicable to artificial light-weight aggregates (coarse or fine). In addition, the judgement in clause **16** is not applicable to aggregates taken from hardened concrete.

The comparison table between previous and current editions of this Standard on technically significant revisions is given in Annex A.

Note [1)] The term and definition of alkali-silica reactivity (ASR) is specified in **3.1** of **JIS A 1145**.

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 1129-3 *Methods of measurement for length change of mortar and concrete — Part 3 : Method with dial gauge*

JIS A 1145 *Method of test for alkali-silica reactivity of aggregates by chemical method*

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

JIS K 8576 *Sodium hydroxide (Reagent)*

JIS R 5201 *Physical testing methods for cement*

JIS R 5210 *Portland cement*

JIS Z 8801-1 *Test sieves — Part 1 : Test sieves of metal wire cloth*

3 Sample

The aggregates used for the test shall be the unused aggregates or aggregates in fresh concrete. For aggregates taken from fresh concrete, wash sufficiently to remove the cement paste, etc. Take approximately 40 kg of representative samples from coarse and fine aggregates.

When performing the mortar-bar method following the chemical method, use the samples which were taken simultaneously.