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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 Japan Cement Association (JCA) 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 R 5210:2003** has been replaced with this Standard.

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Portland cement

1 Scope

This Japanese Industrial Standard specifies portland cement.

Matters revised from the previous edition that are of technical significance are explained in Annex A in the form of a table of comparison between this edition and the previous edition.

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 6201 *Fly ash for use in concrete*

JIS M 8850 *Methods for chemical analysis of limestone*

JIS R 5201 *Physical testing methods for cement*

JIS R 5202 *Methods for chemical analysis of cements*

JIS R 5203 *Testing method for heat of hydration of cement*

JIS R 5204 *Chemical analysis method of cement by x-ray fluorescence*

JIS R 5211 *Portland blast-furnace slag cement*

JIS R 5212 *Portland pozzolan cement*

JIS R 9151 *Gypsum for portland cement retarder*

JIS Z 1505 *Kraft paper sacks—For cement*

3 Types and composition

Portland cement is classified into the following 12 types, and composition of each of which is as given in table 1.

Minor additional constituents may be used by combining constituents specified in **5.3**. The amount of grinding aids used shall be less than 1 % of the mass of portland cement.

- a) Ordinary portland cement
- b) High-early-strength portland cement
- c) Ultra-early-strength portland cement
- d) Moderate-heat portland cement
- e) Low-heat portland cement
- f) Sulfate-resistant portland cement
- g) Ordinary portland cement (low alkali type)