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**Precast concrete products — Required
performance and methods of verification**

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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 Precast Concrete Standard (JPCS)/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 A 5362:2010** is replaced with this Standard.

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Precast concrete products — Required performance and methods of verification

1 Scope

This Japanese Industrial Standard specifies required performances¹⁾ of precast concrete products (hereafter referred to as “products”) and general matters of verification methods thereof. However, this Standard does not apply to concrete products for buildings which are specified in other Japanese Industrial Standards.

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

Note¹⁾ There are various types of products applied to structures, for example products to be used directly as a structure, to be a part of a structure, or to be combined with other products to constitute a structure. Therefore, the performances of products are specified depending on their applications to structure to ensure these performances.

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 0203 *Concrete terminology*

JIS A 5363 *Precast concrete products — General rules for methods of performance test*

JIS A 5371 *Precast unreinforced concrete products*

JIS A 5372 *Precast reinforced concrete products*

JIS A 5373 *Precast prestressed concrete products*

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in JIS A 0203, and the following apply.

3.1 quality

degree to which a set of inherent properties of a structure or a product meets the performance requirements

3.2 performance

capability of a structure or a product to achieve a purpose and to exhibit functions

3.3 action

all workings that cause ageing of a load and material properties of a structure or a product

3.4 service performance

performance of a structure or a product to be used comfortably, serving the required function

3.5 safety

performance of a product or a structure not to fracture under a load smaller than specified by design and to maintain the predetermined function

3.6 earthquake resistance

performance of a structure to meet overall requirements for safety and service performance during and after earthquake, and easiness of restoration after earthquake

3.7 integrity

performance of a structure not to deform under a load smaller than specified by the design and to maintain the predetermined function

3.8 workability

performance of a product to enable works to be conducted safely and easily without abnormalities detrimental to use

3.9 verification of performance

quantitative evaluation of a product to examine if the product satisfies the required performances by referring to a proper resource (design document, performance test result or actual result)

4 Required performances

The purchaser shall select required performances of a structure and a product from Table 1.

NOTE : JIS A 5371, JIS A 5372 and JIS A 5373 specify product performances for recommended specifications, on the premise that products are subjected to a standard load in an ordinary environment.

Table 1 Concrete structure and performances of products used

Type	Performance	Description of performance	Relevant properties or limit state
Structure	Service performance	A structure or a product shall be used comfortably under a load expected during service, fulfilling the required function.	e.g. strength, appearance, deformation, water-tightness
	Safety	A product or structure shall not lose, ruin or destabilize a predetermined function under a load smaller than specified by design.	e.g. cross-sectional fracture, fatigue fracture, stability of structure