

# JIS

**JAPANESE INDUSTRIAL STANDARD**

**Chemical Admixtures  
for Concrete**

**JIS A 6204—1987**

**Translated and Published**

**by**

**Japanese Standards Association**

In the event of any doubt arising,  
the original Standard in Japanese is to be final authority.

## JAPANESE INDUSTRIAL STANDARD

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Chemical Admixtures  
for Concrete

A 6204-1987

1. Scope

This Japanese Industrial Standard specifies the air entraining agent, the water reducing agent and the air entraining water reducing agent used for the chemical admixtures for concrete, hereinafter referred to as the "chemical admixtures".

Remark: The units and numerical values given in { } in this Standard are based on the International System of Units (SI) and are appended for reference.

2. Definitions

For the main terms used in this Standard the definitions in JIS A 0203 apply, and the rest of the terms shall be as follows:

- (1) chemical admixtures Admixtures mainly used for improving various properties of concrete by effects of its surface activity.
- (2) air entraining water reducing agent Chemical admixtures having the combined effects of both air entraining agent and water reducing agent.
- (3) chemical admixtures of standard type Water reducing agent and the air entraining water reducing agent of the type which does not change the speed of setting and initial hardening of concrete.
- (4) chemical admixtures of retardation type Water reducing agent and the air entraining water reducing agent of the type which retards the setting of concrete.
- (5) chemical admixtures of acceleration type Water reducing agent and the air entraining water reducing agent of the type which accelerates the hardening of concrete.
- (6) standard concrete The concrete not using the chemical admixtures as the standard in the test of the quality of chemical admixtures.
- (7) test concrete The concrete using the chemical admixtures as the object in the test of the quality of chemical admixtures.

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Applicable Standards: See pages 27 and 28.

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### 3. Classification

Chemical admixtures shall be classified, according to quality, as shown in Table 1, and according to chloride content (content of chloride ion), as shown in Table 2.

Table 1. Classification According to Quality of Chemical Admixtures

Air entraining agent	-
Water reducing agent	Standard type
	Retardation type
	Acceleration type
Air entraining water reducing agent	Standard type
	Retardation type
	Acceleration type

Table 2. Classification According to chloride content (Content of chloride ion) in chemical Admixtures

Classification	Chloride content (content of chloride ion) kg/m <sup>3</sup>
Class I	0.02 and under
Class II	Over 0.02 to 0.20 incl.
Class III	Over 0.20 to 0.60 incl.

### 4. Quality

4.1 Performance The chemical admixtures shall be tested in accordance with 5.1 and the results shall meet the requirements specified in Table 3 for both the concrete of 8 cm and for 18 cm in slump. However, the specified value of the resistance to freezing and thawing (relative dynamic modulus of elasticity) shall apply only to the concrete of 8 cm in slump.

4.2 Chloride Content (Content of chloride ion) Chloride content (content of chloride ion) shall be tested according to the prescription in 5.2 and the results shall conform to the requirements specified in Table 2.