

JIS

JAPANESE INDUSTRIAL STANDARD

Concrete Terminology

JIS A 0203—1980

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Concrete Terminology

A 0203-1980

1. Scope

This Japanese Industrial Standard specifies the principal terms, hereinafter referred to as the "terms", their reading, and definitions to be used concerning concrete.

Further, the equivalent English is shown for reference.

2. Classification

The terms shall be classified as follows:

- (1) Concrete
- (2) Materials
 - (a) Cement
 - (b) Admixture
 - (c) Aggregate
 - (d) Reinforcement
- (3) Properties of concrete and materials
- (4) Equipment and execution of works

3. Numbers, Terms, Readings and Definitions

The numbers, terms, readings and definitions shall be as follows:

- Remarks
- 1. Where two or more terms are described in one term column, any one of the terms may be used.
 - 2. The term a part of which is shown in parentheses indicates that the term including the letters in the parentheses and also the term omitted with the letters in the parentheses may be used.

Applicable Standards: See pages 27 and 28.

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(1) Concrete

No.	Term	Reading	Definition	Reference
				Equivalent English
1001	Concrete	KONKURĪTO	A mixture of cement, water, fine aggregate, and coarse aggregate, as required with adding admixture.	concrete
1002	Plain concrete	PURĒN KONKURĪTO	Concrete without using chemical admixture, particularly air entraining agent.	plain concrete
1003	AE concrete	ĒI KONKURĪTO	Concrete in which micro air bubbles are contained schematically by using air entraining agent.	air entrained concrete
1004	Mortar	MORUTARU	A mixture of cement, water and fine aggregate, as required with adding admixture.	mortar
1005	Cement paste	SEMENTO PĒSUTO	A mixture of cement and water, as required with adding admixture.	cement paste
1006	Lightweight concrete	KEIRYŌ KONKURĪTO	Concrete of low mass made by using lightweight aggregate and by containing a large amount of air bubbles.	lightweight concrete
1007	Lightweight aggregate concrete	KEIRYŌ KOTSUZAI KONKURĪTO	Concrete of low mass made by using lightweight aggregate.	lightweight aggregate concrete
1008	Heavy (-weight) concrete, high density concrete	JŪRYŌ KONKURĪTO	Concrete of high mass made by using heavy-weight aggregate.	heavy (-weight) concrete, high density concrete

No.	Term	Reading	Definition	Reference
				Equivalent English
1009	Plain concrete, unreinforced concrete	MUKIN KONKURĪTO	Concrete without reinforcement.	plain concrete, unreinforced concrete
1010	Reinforced concrete	TEKKIN KONKURĪTO	Concrete containing adequate reinforcement.	reinforced concrete
1011	Steel framed reinforced concrete	TEKKOTSU TEKKIN-KONKURĪTO	Concrete reinforced by steel frame and reinforcement.	steel framed reinforced concrete
1012	Prestressed concrete	PURESUTO-RESUTO KONKURĪTO	Concrete given with prestress.	prestressed concrete

(2) Materials(a) Cement

No.	Term	Reading	Definition	Reference
				Equivalent English
2101	Cement	SEMENTO	Mineral powders which harden by reaction with water.	cement
2102	Portland cement	PORUTORAND SEMENTO	A cement produced by pulverizing clinker consisting essentially of hydraulic calcium silicates and added with a proper amount of gypsum.	portland cement
2103	Ordinary portland cement	FUTSŪ PORUTORANDO SEMENTO	A portland cement used most generally and specified in JIS R 5210.	ordinary portland cement

No.	Term	Reading	Definition	Reference
				Equivalent English
2104	High-early-strength portland cement	SŌKYŌ PORUTORANDO SEMENTO	A portland cement adjusted so as to produce earlier strength particularly and specified in JIS R 5210.	high-early-strength portland cement
2105	Ultra high-early-strength portland cement	CHŌSŌKYŌ- PORUTORANDO SEMENTO	A portland cement adjusted so as to produce earlier strength further than the high-early-strength portland cement and specified in JIS R 5210.	ultra high-early-strength portland cement
2106	Sulfate resisting portland cement	TAIRYŪSANEN- PORUTORANDO SEMENTO	A portland cement adjusted for tricalcium aluminate to be reduced so as the resistance against corrosion by sulfate particularly to become large, and specified in JIS R 5210.	sulfate resisting portland cement
2107	Moderate heat portland cement	CHŪYŌNETSU PORUTORANDO SEMENTO	A portland cement so adjusted that the heat of hydration particularly becomes small and specified in JIS R 5210.	moderate heat portland cement
2108	White portland cement	HAKUSHOKU PORUTORANDO SEMENTO	A white portland cement having low iron content so as the colour of cement paste to become white even after hardening.	white portland cement
2109	Blended cement	KONGŌ SEMENTO	A cement consisting essentially of portland cement, blended with the materials consisting essentially of silica and lime substances such as pozzolan, rapidly cooled blast-furnace slag, etc.	blended cement
2110	Portlment blast-furnace slag cement	KŌRO SEMENTO	A blended cement using rapidly cooled blast-furnace slag and specified in JIS R 5211.	portlment blast-furnace slag cement

No.	Term	Reading	Definition	Reference
				Equivalent English
2111	Portland pozzolan cement	SHIRIKA SEMENTO	A blended cement using pozzolan other than fly-ash and specified in JIS R 5212.	portland pozzolan cement
2112	Portland fly-ash cement	FRAIASSHU SEMENTO	A blended cement using fly-ash and specified in JIS R 5213.	portland fly-ash cement
2113	High alumina cement	ARUMINA SEMENTO	A cement produced by pulverizing clinker consisting essentially of hydraulic calcium aluminate.	high alumina cement

(b) Admixture

No.	Term	Reading	Definition	Reference
				Equivalent English
2201	Admixture	KONWAZAI-RYŌ	A material other than cement, water, aggregate and added immediately before or during mixing to give concrete or the like the particular properties.	admixture
2202	Admixture	KONWAZAI	Admixture of which volume is to be added to the mixed volume of concrete or the like.	admixture
2203	Pozzolan	POZORAN	Pulvererized silica material which has almost no hydraulic property but hardness by making insoluble compound based on the gradual reaction with calcium hydroxide under existence of water at ordinary temperature.	pozzolan

No.	Term	Reading	Definition	Reference
				Equivalent English
2204	Fly ash	FRAIASSHU	A kind of pozzolan collected from the waste gas of pulverized-coal burning boiler, and specified in JIS A 6201.	fly ash
2205	Blast-furnace slag	KŌRO SURAGU	Mineral material consisting of compounds such as silica, alumina, lime, etc. generated from iron ores and lime stones melt in a blast furnace.	blast furnace slag
2206	Chemical admixture, additive	KONWAZAI	Admixture of which volume is not to be added to the mixed volume of concrete or the like in usual case, or is capable of substituting with mixing water.	chemical admixture, additive
2207	Surface active agent	HYŌMEN KASSEIZAI	Chemical admixture to change the properties of concrete or the like according to surface active actuation.	surface active agent
2208	AE agent	ĒIZAI	Chemical admixture to distribute many minute bubbles of air uniformly in concrete or the like.	air entraining agent
2209	Water reducing agent	GENSUIZAI	Chemical admixture to improve workability without increasing the quantity per unit volume of concrete or the like, or to decrease the water quantity per unit volume without changing the workability.	water reducing agent
2210	Set accelerating agent	KYŪKETSUZAI	Chemical admixture to be used to accelerate hydration reaction of cement and the decrease remarkably shorter the set period of time.	set accelerating agent

No.	Term	Reading	Definition	Reference
				Equivalent English
2211	Accelerator	KŌKA SOKUSHINZAI	Chemical admixture used for accelerating the reaction of hydration of cement to make the strength of primary age larger.	accelerator
2212	Retarder	GYŌKETSU CHIENZAI	Chemical admixture used for retardating the reaction of hydration to make the period of time required for set longer.	retarder

(c) Aggregate

No.	Term	Reading	Definition	Reference
				Equivalent English
2301	Aggregate	KOTSUZAI	Granular material, such as sand, gravel, crushed stone and the like mixed with cement and water to make mortar or concrete.	aggregate
2302	Fine aggregate	SAIKOTSUZAI	Aggregate entirely passing the 10 mm sieve and passing the 5 mm sieve by 85 % or more in mass.	fine aggregate
2303	Coarse aggregate	SOKOTSUZAI	Aggregate retaining on the 5 mm sieve by 85 % or more in mass.	coarse aggregate
2304	Sand	SUNA	Fine aggregate resulted from rock by natural action.	sand
2305	Gravel	JARI	Coarse aggregate resulted from rock by natural action.	gravel

No.	Term	Reading	Definition	Reference
				Equivalent English
2306	Cobble stone, boulder	TAMAISHI	A rounded stone of 10 to 30 cm in diameter.	cobble stone, boulder
2307	Crushed sand	SAISA	Fine aggregate made artificially by crushing rock by crusher or the like.	crushed sand
2308	Crushed stone	SAISEKI	Coarse aggregate made artificially by crushing rock by crusher or the like.	crushed stone
2309	Light-weight aggregate	KEIRYŌ KOTSUZAI	Aggregate having a smaller specific gravity than the normal rock for the purpose of reducing the mass of concrete.	lightweight aggregate
2310	Natural lightweight aggregate, pumice	TENNEN KEIRYŌ KOTSUZAI	Lightweight aggregate resulted naturally according to volcanic action or the like.	natural lightweight aggregate, pumice
2311	Artificial lightweight aggregate	JINKŌ KEIRYŌ KOTSUZAI	Lightweight aggregate made artificially using shale, cinder, blast-furnace slag, fly-ash, etc. as principal raw materials.	artificial lightweight aggregate
2312	Heavy-weight aggregate	JŪRYŌ KOTSUZAI	Aggregate with a larger specific gravity than that of the normal rock to be used for radiation shielding concrete.	heavy-weight aggregate
2313	Standard sand	HYŌJUNSA	The specified sand to be used for mortar for cement-strength test and the natural silicate sand resulted from TOYOURA specified in JIS R 5201.	standard sand