

JIS

JAPANESE INDUSTRIAL STANDARD

Glossary of Terms related
to Gypsum, Lime and
Magnesia Cement

JIS R 9200—1986

Translated and Published

by

Japanese Standards Association

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Glossary of Terms related to
Gypsum, Lime and Magnesia Cement

R 9200-1986

1. Scope

This Japanese Industrial Standard specifies main terms to be used in industries of gypsum, lime and magnesia cement.

Further, the equivalent English is appended for reference.

2. Terms and Meanings

The terms and meanings shall be as follows.

No.	Term	Meaning	Equivalent English (Reference)
001	ARAGONAITO	CaCO_3 . Rhombic system. Specific gravity: 2.93. One of polymorph of calcium carbonate. It is also called "ARAREISHI".	Aragonite
002	ARABASUTĀ	See SEKKA SEKKŌ.	Alabaster
003	ARYŪSAN KARUSHIUMU	CaSO_3 . It is not produced in nature. There are tetrahydrate ($\text{CaSO}_3 \cdot 4 \text{H}_2\text{O}$), hemihydrate ($\text{CaSO}_3 \cdot 1/2 \text{H}_2\text{O}$), and anhydride (CaSO_3). Tetrahydrate is stable at 5°C or under. Hemihydrate: rhombic system. Specific gravity 2.50. It is stable at room temperature, but in nitrogen it is dehydrated to anhydride at 330 to 360°C. If the anhydride is kneaded with water, it hydrates and hardens to hemihydrate.	Calcium sulfite

No.	Term	Meaning	Equivalent English (Reference)
004	ARUFAGATA HANSUI SEKKŌ	α -CaSO ₄ ·1/2 H ₂ O. Trigonal system, specific gravity 2.76. Calcium sulfate hemihydrate which is made by dehydrating gypsum under pressure, and has hydration hardening property retaining about 0.5 mol combined water. It is mainly obtained by steam method, aqueous solution method, etc. It is also called "ARUFAGATA SEKKŌ".	α -hemi-hydrate gypsum
005	ANTEISEI SHIKEN	The test to examine the stability of plastering lime, dolomite plaster, etc. after their application. (See JIS A 6902, A 6903)	Soundness test
006	IRYŌYŌ SEKKŌ	Hemihydrate gypsum used for plastic surgery, beauty plastic art, etc.	medical (gypsum) plaster
007	ENKA MAGUNESHIUMU	MgCl ₂ ·6H ₂ O. Monoclinic system. Specific gravity 1.56. It is also called "ENMAGU". Crystal remarkable in deliquescence, and obtained from bittern is called "solid bittern". It is used for magnesia cement. (See JIS A 6905, K 8159)	magnesium chloride
008	OSHIDASHI SEIKEI KI (HAKUBOKU)	An extrusion molding machine to be used for molding chalk made of calcium carbonate.	extrusion molding machine for chalk

No.	Term	Meaning	Equivalent English (Reference)
009	KAATSU SHŌKA	Method for slaking quicklime under pressure by using autoclave. It is also called "ATSURYOKU SHŌKA"	pressure hydration
010	KAIKŌRITSU	The ratio of the area of perforated gypsum board for sound absorption to the total sum of areas of perforated holes. Expressed by percentage.	rate of hole area
011	KAISUI MAGNESHIA	The magnesia obtained by calcining magnesium hydroxide which is obtained by reacting milk of lime with sea water or bittern.	sea water magnesia
012	KAIBAI	The lime obtained by calcining shell. In our country, it had been used for plaster finish as slaked lime in former years.	shell lime
013	KAON ASSHUKU TSUYOSA	The compressive strength after immersing the hardened material of dental stone in warm water for 2 h. (See JIS T 6605)	
014	KAON SHIKEN	The test to examine whether the hardened material of dental plaster collapses or not in warm water. (See JIS T 6604)	
015	KAGAKU SEKKŌ	Autonym of natural gypsum. In each industries, gypsum to be formed by chemical reaction of neutralization or double decomposition.	chemical gypsum
016	KAGŌSUI (SEKKŌ)	Respectively 2 mol and 1/2 mol of crystal water combined with gypsum and hemihydrate gypsum.	combined water

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No.	Term	Meaning	Equivalent English (Reference)
017	KASHŌ	Burning carbonates, hydroxides, hydrates, etc. until a part or total part of carbon dioxide or water disappears.	calcination, calcining
018	KATAOSHI RASUBŌDO	A gypsum lath board embossed on its surface with small indents of a large number for the purpose of improving adhesiveness of gypsum board with gypsum plaster. (See JIS A 6906)	embossed gypsum lath boards
019	KATAZAIYŌ SEKKŌ	Hemihydrate gypsum to be used for various forming molds for porcelain ware and others.	molding (gypsum) plaster
020	KATAYAKI KISEKKAI	Quicklime which is burned of limestone at a higher temperature than normal, crystals of calcium oxide being developed, therefore porosity rate being small, activity being low. It is also called "KŌSHŌ SEKKAI".	hard-burned lime
021	KAYŌSEI MUSUI SEKKŌ	Anhydrous gypsum which is generated at first when hemihydrate gypsum is heated, having hydration hardening property. The composition formula is III-CaSO_4 or $\gamma\text{-CaSO}_4$.	soluble anhydrous gypsum
022	KARUSAITO	CaCO_3 . Trigonal system. Specific gravity 2.71. Decomposition temperature 890°C (1 atm). It is also called "HŌKAISEKI". It has characteristics that its double refraction is high and change of crystal phase is extremely remarkable.	calcite

No.	Term	Meaning	Equivalent English (Reference)
023	KANSŌJI MAGE SHIKEN	The test to measure the bend breaking load of gypsum board dried to constant mass. (See JIS A 6904)	dry breaking load test
024	GANSUI RITSU (SEKKŌ BŌDO)	Water content remaining in a gypsum board, being the ratio of mass of water content evaporate at about 40°C to dry mass. It is expressed by percentage.	moisture content
025	GANSUI RITSU (HAKUBOKU)	Water content remaining in a formed dry product of chalk, being the mass evaporate at about 45°C. It is expressed by percentage. (See JIS S 6009)	moisture content
026	KISEKKAI	The calcined limestone the main component of which is calcium oxide. When water is added, it hydrates to become hydrated lime. It is also called "SEI SEKKAI".	quicklime
027	KYŪONYŌ ANAAKI SEKKŌ BŌDO	The gypsum board in which specified holes for the purpose of sound absorption are penetrated from the surface to the back surface. There are those backed with paper, non-inflammable paper, glass fibres, etc. (See JIS A 6301)	perforated gypsum board for acoustic use
028	KYŪSUI SHIKEN	The test to examine the absorption of gypsum sheathing board, and there are total water absorption test and surface water absorption test. (See JIS A 6912)	water absorption test

No.	Term	Meaning	Equivalent English (Reference)
029	KYŪYU RYŌ	One of the quality tests of calcium carbonate for rubber, being the maximum absorption quantity of fluidized paraffin. (See JIS K 6223)	oil absorption
030	GYŌKETSU JIKAN	The time when the calcium sulfate having hydration hardening property such as calcined gypsum, gypsum plaster, etc. solidifies in the process of hydration, being the period of time from beginning of mixing with water until setting. (See JIS A 6904, R 9112, and T 6604)	setting time
031	GYŌKETSU CHIENZAI	It is also called "GYOKETSU CHIKANZAI". Additive to be used for making the time required for setting longer by retarding hydration reaction of gypsum plaster. For example, hydrolyzate of protein and others.	retarder
032	GYŌKETSU CHŌSEIZAI	The generic term of additives to be used for controlling the setting time or controlling the properties of gypsum slurry after kneading.	setting modifier
033	GYŌKETSU BŌCHŌ	The expansion which appears when the calcined gypsum, hard gypsum, etc. set.	setting expansion
034	KĪNSU SEMENTO	It is obtained by the following procedures: Calcine gypsum at a low temperature to make it low hydrate, add to it hardening promoting liquid to hydration-impregnate, and recalcine at a high temperature of about 50°C or over. It is the hydration hardening property plaster having II type anhydrous gypsum as main component, or is used also as the generic term of anhydrous gypsum series plaster for architecture.	Keene's cement

No.	Term	Meaning	Equivalent English (Reference)
035	KUKAISEKI	See DOROMAITO.	dolomite
036	KEISHITSU TANSAN KARUSHIUMU	It is also called "KEISHITSU TAN KARU". It is the synonym of precipitated calcium carbonate. (See JIS K 6223) Otherwise, in some cases, it indicates that of comparatively large grain diameter relative to colloidal calcium carbonate out of precipitated calcium carbonate.	precipitated calcium carbonate, light
037	KEISHŌ KI SEKKAI	Quicklime calcined of lime-stone at a temperature not so much higher than the decomposition temperature (about 900°C). It is porous and high in activity. It is also called "NANSHŌ SEKKAI".	soft-burned lime
038	KEISHŌ DOROMAITO	Dolomite so calcined that periclase (MgO) crystals do not develop so much at a temperature not so much higher than the decomposition temperature (about 900°C). It is high in activity, and is used for steel making and others.	soft-burned dolomite, dolomitic quicklime
039	KEISHŌ MAGUNESHIA	It is also called "KEISHŌ KUDO". It is active magnesium oxide obtained by calcining magnesite or magnesium hydroxide at 600 to 800°C. It is used for magnesia cement. (See JIS A 6905)	soft-burned magnesia
040	KESHŌ SEKKŌ BŌDO	Gypsum boards the surface of which is decorated by working and to be used as finish material as they are for interior of building. There are usual decorated gypsum boards and special decorated gypsum boards. (See JIS A 6911)	decorated gypsum boards

No.	Term	Meaning	Equivalent English (Reference)
041	KETSUGŌSUI (SHŌ SEKKAI)	Water content combined with calcium oxide in slaked lime. It is divided from adhering water content.	combined water
042	KESSHŌ SEKKŌ	See NISUI SEKKŌ.	crystal gypsum
043	KŌGYŌYŌ SEKKAI	Quicklime and slaked lime to be used in iron and steel, chemical industries, etc. (See JIS R 9001)	industrial limes
044	KOGYŌYŌ SEKKŌ	Hemihydrate gypsum to be used for uses such as molding material, medicine, etc. other than building material.	industrial (gypsum) plaster
045	KŌSHITSU SEKKŌ	Plaster including a large amount of α type hemihydrate gypsum, having low mixed water quantity in comparison with usual calcined gypsum and having high strength.	hard (gypsum) plaster
046	KŌ SEKKŌ	Anhydrite of naturally produced mineral, the main component of which is II-CaSO_4 . Mineral having anhydrous gypsum as the main component.	anhydrite
047	KŌDO SHIKEN	(1) A test to measure the hardness of hardened surface of plasters. (See JIS A 6902, A 6903, and A 6904) (2) A test to measure the hardness of paint film of steel plate used for steel sidings-backing by gypsum boards. (See JIS A 6711)	hardness test pencil hardness test
048	GOFUN	Fine powders of calcium carbonate to be used for filler of coloring material for a picture in Japanese style and others.	