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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 8075-2017

Terms of concrete admixtures

混凝土外加剂术语

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 8075-2005 "Concrete admixtures definition, classification, nomenclature and terminology." And GB/T 8075-2005 phase Than, in addition to editorial changes, the main changes are as follows:

--- Modify the standard name.

--- Modify the standard scope, definition and classification (see Chapter 1, Chapter 2, Chapter 3;.2005 edition Chapter 1, Chapter 2, Chapter 3).

--- Product terminology. - Remove the retarding superplasticizer, early strength superplasticizer, retarding superplasticizer, air entraining water reducer, fine slag, silica fume, ground fine coal Gray, ground natural zeolite (2005 edition of 4.7,4.8,4.9,4.10,4.24,4.25,4.26,4.27); - Modified ordinary superplasticizer, superplasticizer, shrinkage reducing agent, air entraining agent, waterproofing agent, coloring agent, thickener, flocculant, plasticizer, Rust inhibitors (see 4.1, 4.2, 4.7, 4.10, 4.13, 4.14, 4.16.1, 4.16.2, 4.17, 4.20, versions 4.1,

4.6 of the.2005 edition, 4.22, 4.13, 4.11, 4.16, 4.21, 4.20, 4.23, 4.12); - added a standard type of ordinary water reducer, retarding ordinary superplasticizer, early-type ordinary superplasticizer, air-induced general water reducer; standard Quasi-type superplasticizer, retarding superplasticizer, early superplasticizer, air-entraining superplasticizer; high performance water reducing Agent, standard high performance water reducer, retarding high performance water reducer, early strength high performance water reducing agent and shrinking high performance water reducing agent Agent; Chloride-free antifreeze, composite antifreeze; antifreeze pumping agent; coagulant, alkali accelerator, alkali accelerator; foam; Defoamers; cementitious capillary crystalline waterproofing agent; viscosity modifier; concrete slump retention agent; calcium sulfoaluminate expansion agent, Calcium oxide expansive agent, calcium sulphoaluminate - calcium oxide expansive agent; sulfate attacker; concrete corrosion inhibitor; alkali-bone Material Reaction Inhibitors; Pipeline Grouts/Prestressing Grouts; Multifunctional Additives (see 4.1.1, 4.1.2, 4.1.3, 4.1.4;

4.2.1, 4.2.2, 4.2.3, 4.2.4; 4.3, 4.3.1, 4.3.2, 4.3.3, 4.3.4; 4.4.1, 4.4.2; 4.5.1; 4.6, 4.6. 2.1, 4.6.2.2; 4.11; 4.12; 4.13.1; 4.16; 4.17.1; 4.18.1, 4.18.2, 4.18.3; 4.19; 4.20.1; 4.21; 4.22; 4.23).

--- Performance terms. - Removed steel rust test, water requirement ratio, cement mortar workability, activity index, pH value (2005 version 5.2.10, 5.2.21, 5.2.22, 5.2.24, 5.2.26); - Alkali content, solids content, moisture content, cement paste flow, penetration height ratio (see 5.3, 5.4, 5.5, 5.6, 5.26; 2005 edition of 5.2.23, 5.2.27, 5.2.28, 5.2.29, 5.2.18); - Increased homogeneity, cohesion, mortar fluidity, mortar expansion, mortar water reduction, flexural strength ratio, flexural strength ratio, with Volume of gas, variation of gas content over time, change of slump over time, water-permeable pressure ratio, number of freeze-thaw cycles, limit of harmful substances Amount, limit of ammonia release, limit of residual formaldehyde, bubble spacing factor, flow cone time, filling degree, expansion ratio, 1h settlement Distance, second impermeability, compatibility, miscibility, robustness (see 5.1, 5.2, 5.7, 5.8, 5.9, 5.15, 5.16, 5.18, 5.19, 5.22, 5.27, 5.29, 5.30, 5.30.1, 5.30.2, 5.31, 5.32, 5.33, 5.34, 5.35, 5.36, 5.37, 5.38, 5.41).

--- Test terms. - Removed multi-functional admixture, standard admixture, retarding admixture, procoagulant admixture, composite mineral admixture (2005 Version 5.1.5, 5.1.8, 5.1.9, 5.1.10, 5.1.1.18); - Modify the admixture dosage, recommend the maximum dosage, the benchmark cement, the test standard concrete, negative temperature concrete (see 6.2, 6. 2, 3, 6. 10, 6. 16, 6. 17; 2005 edition 5.1.1, 5.1.4, 5.1.11, 5.1.14, 5.1.15); - increase the total amount of cementitious materials, the recommended test dosage, the amount of defibrillation, type testing, factory inspection, entry inspection, repeatability Repeatability, reproducibility, reproducibility limit, standard maintenance, specified temperature, water to binder ratio (see 6.1, 6.2.4, 6.2.5, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.15, 6.18, 6.19).

--- other terms. - added the main functions, secondary functions, internal mixing method, external mixing method, the first mixed law, the law with the law, the law after the law, the second law (this edition 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8).

--- Chinese index and English index made amendments and additions. This standard proposed by the China Building Materials Federation. This standard by the National Standardization Technical Committee cement (SAC/TC197) centralized. This standard is drafted by China Academy of Building Materials Science. Participated in the drafting of this standard. China Building Materials Federation of concrete admixture Branch, Beijing University of Technology, Jiangsu Subot new materials Co., Ltd., Chang'an University, China Academy of Building Research, Building Materials Industry Technology Supervision and Research Center, Zhejiang Wulong new material shares Co., Ltd., Guangdong Red Wall New Materials Co., Ltd., Jiangsu Hairun Chemical Co., Ltd., Shijiazhuang Changan Yucai Building Materials Co., Ltd., Jiangsu China Railway Aoleite New Material Co., Ltd., Guangdong Ryan Technology Industrial Co., Ltd., Shandong Province, Laiwu Wenhe

Chemical Co., Ltd., Shanxi Sangmuosi Building Materials Chemical Co., Ltd., Jiangxi Wuguan New Materials Co., Ltd., Shandong Hua Wei Yin Kai Building Materials Technology Co., Ltd., Hall Bin Jia Lian Concrete Technology Development Co., Ltd., Zhejiang Ji Sheng Chemical Building Materials Co., Ltd., Shandong Institute of Building Research, China Railway Science Institute of Railway Construction Institute, Dalian University, Anhui Seven Star Engineering Co., Ltd. test. The main drafters of this standard. Wang Ling, Tian Pei, Gao Ruijun, Wang Ming, Ran Qianping, Huang Jing, Zheng Mulin, Yang Bin, Zhao Xia, Han Hongliang, Zhao Lihua, Wang Jinchun, Wang Yi, Zhong Yilin, Wu Zhenhua, Sun Jianrong, Ma Yongsheng, Dong Weiwei, Li Jianfang, Jia Jitang, Wang Yongwei, Jin Ruihao, Zhu Changhua, Li Wei Hong, Song Junhua. This standard replaces the standards previously issued as.

--- GB/T 8075-1987, GB/T 8075-2005. Concrete admixture terminology

1 Scope

China's national terminology for concrete admixtures. Admixtures are added to concrete in fractions of a per cent by weight of cement and change what the material can do more than any other ingredient: superplasticisers make concrete flow without adding water, which is what makes high strength and self-compacting concrete possible at all; retarders keep a large pour workable through the hours it takes to place; accelerators let concrete set in winter; air entrainers give it frost resistance; and shrinkage reducers control the cracking that follows. Because the doses are small and the effects large, and because two admixtures can be incompatible with each other or with a particular cement, the vocabulary has to be precise about what each does - a water reducer and a plasticiser are not the same claim, and a retarder is not a set-controlling admixture in general. The standard specifies the terms for the definition, classification and products, performance and inspection of concrete admixtures, and may be referenced for cement paste and mortar admixtures.

This standard specifies the definition of cement admixture, classification and product, performance, inspection and other terms. This standard applies to concrete admixtures, cement paste and mortar admixture can also be used for reference.

2 Definition

Concrete admixture is in addition to cementitious materials in concrete, aggregate, water and fiber components, before mixing in the concrete or mixing process Materials added to improve the properties of fresh concrete and/or hardened concrete without deleterious effects on people, living things and the environment. the following Referred to as admixture.

3 Categories

Concrete admixtures are divided according to their main function.

- Improve the rheological properties of concrete admixtures, such as various superplasticizers and pumping agents;
- Adjusting the concrete setting time, hardening process of additives, such as retarder, early strength agent, accelerator and quick-setting agent;
- To improve the durability of concrete admixtures, such as air-entraining agent, waterproofing agent and rust inhibitor;
- Improve other properties of concrete admixtures, such as expanders, antifreeze and coloring agents.

4 Product terminology

4.1 General water reducer waterreducingadmixture In the slump of concrete is basically the same conditions, the water reduction rate of not less than 8% admixture.

4.1.1 Standard type water reducer standard typewaterreducingadmixture An ordinary water reducer with water-reducing function and no significant effect on the setting time of the concrete.

4.1.2 Retarder type ordinary water reducer setretardingtypewaterreducingadmixture Ordinary water-reducing agent with retarding function.

4.1.3 Early strong type ordinary water reducer hardeningacceleratingtypewaterreducingadmixture An ordinary water reducer with early strength.

4.1.4 Air-induced general water reducer airentainingtypewaterreducingadmixture A general superplasticizer with air bleed function.

4.2 Superplasticizer highrangewaterreducingadmixture; superplasticizer In the same slump of concrete under the same conditions, the water reduction rate of not less than 14% of water-reducing agent.