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

**GB/T 8076-2025**

Replacing GB 8076-2008

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**Concrete admixtures**

混凝土外加剂

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### 1 Scope

This Standard specifies the terms, definitions, requirements, test procedures, inspection rules, package, exit-factory, storage and return of admixtures used in concrete.

This Standard is applicable to high performance water reducer (accelerating, standard and retarding reducers), high efficiency water reducer (standard and retarding reducers), ordinary water reducer (accelerating, standard and retarding reducers), air- entraining water reducer, pumping admixture, early strength admixture, retarder and air-entraining admixture, eight in total.

### 2 Normative References

GB/T176

GB/T 8074

GB/T 8075

GB/T 8077

GB/T 8170

GB/T 14684

### **3 Terms and Definitions**

For the purpose of this standard, the following terms and definitions AND those established in GB/T 8075 apply.

#### **3.1 High performance water reducer**

It is superior to high efficiency water reducer in the following aspects. higher water-reducing rate, better slump keeping performance, less dry shrinkage and a certain performance of air entraining.

#### **3.2 Reference cement**

The cement that meets the requirements in Appendix A of this Standard and is specially used to inspected concrete admixture performance.

### **4 Codes**

The following types of admixtures are represented by the following codes.

#### **5.1 Performance indexes of test concrete**

Performance of concrete added with admixture shall meet the requirements listed in Table 1.

#### **5.2 Uniformity indexes**

Uniformity index shall meet requirements of Table 2.

#### **6.1.1 Cement**

Cement specified in Appendix A of this Standard is adopted.

#### **6.1.2 Sand**

Medium sand which meets the requirements of Area II in GB/T 14684; but the fineness modulus is 2.6 ~ 2.9 and silt content is less than 1 %.

#### **6.1.4 Water**

It shall meet the technical requirements for water consumption of concrete mixing specified in JGJ 63.

#### **6.1.5 Admixtures**

The admixtures that need to be inspected.

#### **6.2 Mixing proportion**

Reference concrete mixing proportion is designed according to JGJ 55. The proportion of test concrete added with non-air-entraining admixture shall be the same with that of cement, sand and crushed-stone of the corresponding reference concrete. Mixing proportion design shall meet the following provisions.

#### **6.3 Concrete mixing**

Adopt the single-lay-shaft forced blender with nominal capacity of 60L and that meets the requirements stipulated in JG 3036. The mixing amount of blender shall neither be less than 20L nor greater than 45L.

##### **6.4.1 Sample preparation**

Concrete sample is prepared and cured according to GB/T 50080; however, concrete pre-curing temperature is  $(20 \pm 3) ^\circ\text{C}$ .

##### **6.4.2 Test items and sample amount**

Test items and amount are listed in Table 3.

##### **6.6.1 Compressive strength ratio measurement**

Compressive strength ratio is represented by the ratio of compressive strengths BETWEEN concrete added with admixture AND same-duration of reference concrete.

It is calculated according to Formula (9), accurate to 1%.

##### **6.7.1 Chloride ion content measurement**

Chloride ion content is measured according to GB/T 8077 or the method specified in

**Appendix B of this Standard. For arbitration, the methods stated in Appendix B are**

applied.

**6.7.2 Measurement of solid content, total alkali amount, water content, density, fineness, pH value and sodium sulfate content** It shall be measured according to GB/T 8077.

#### **7.1.1 Spot-sample and mixing-sample**

Spot-sample refers to a sample obtained from the product in one-time production.

Mixing-sample refers to the sample that is obtained after three or more spot-samples are mixed equivalently and evenly.

#### **7.1.2 Lot number**

Manufacturer shall number the products by lot according to output and manufacturing equipment condition. Each lot number of admixture, with the same type and whose mixing proportion is greater than 1% (including 1%), is 100t; and each lot number of admixture, whose mixing proportion is less than 1%, is 50t.

#### **7.2 Samples and reserved-sample**

Samples taken from each lot shall be thoroughly and evenly mixed, which shall be divided into two equal-portions. In which, one portion is tested according to the items listed in Table 1 and Table 2, and the other is sealed and conserved for half a year.

authorities for retest or arbitration.

#### **7.3.1 Exit-factory inspection**

Items of exit-factory inspection of each lot of admixtures are inspected according to the items specified in Table 4 and based on different varieties.

#### **7.3.2 Type inspection**

Type inspection items include all performance indexes in Chapter 5. Under any of the following conditions, type inspection shall be carried out.

#### **7.5 Retest**

Retest shall be carried out with sealed and reserved samples. If user-organization requires for on-site sampling, then the requirements shall be specified in procurement contract in advance, and mixing-sample shall be taken on-site when both personnel from the manufacturer and user-organization are present.

### **8.1 Product instructions**