Construction chemicals concrete admixture PCE polycarboxylate superplasticizer

Construction chemicals concrete admixture PCE polycarboxylate superplasticizer is a new generation of Eco-friendly high performance polycarboxylate ether superplasticizer powder developed by our company with DD-908 (HPEG4000) as main raw material.

Admixtures (such as water reducing agent, vulcanizing agent, etc.) have a great influence on the workability of concrete. A small amount of admixture can make the concrete mixture get good workability without increasing the amount of cement. Not only the fluidity is significantly increased, but also the cohesion and water retention of the mixture are effectively improved, and the strength and durability of concrete are also improved. According to the physical and chemical characteristics of concrete admixture, water reducing agent can play a role in the following aspects.

(1) water reducing agent can disperse cement particles to varying degrees. It can make cement water condensation into flocculent block broken, plus many kinds of water reducing

agent more or less some air effect, so that the viscosity of cement slurry decreased, increased mobility, can make concrete in all proportions completely do not change the condition, the fluidity of the mixture greatly increased. This effect is conducive to operation and mechanized construction.

(2) under the condition of changing the water-cement ratio properly, fine-tuning the proportion of aggregate and lower water-cement ratio, the concrete mixture can have the fluidity similar to that without adding water-reducing agent.

(3) cement can be properly saved without changing the fluidity of the mixture or changing the strength of hardened concrete. Because of mixed with water reducing agent, the strength requirements can change the water cement ratio, water reducing agent has liquid mixture increased, so you can use less per unit volume of concrete cement dosage, can reach the engineering the later strength and liquidity, it reduces the dosage of cement concrete, which have played a role in saving the cement. General water reducing agent, the use of good time can save cement 5% ~ 10%, efficient water reducing agent to save more.

Effect of water reducing agent on properties of concrete

① Influence of water reducing agent on rheological properties of fresh mixed concrete

In order to prepare the fresh concrete with good flow property, the viscous structure which reduces the flow barrier between cement particles must be dismantled, so that the cement particles can be fully dispersed in the water medium. There are many properties that affect cement glue melting, such as the mineral composition of cement, the shape size of cement particles, the integrity of mineral crystallization and operating conditions and environmental factors. These factors directly or indirectly control the stability of cement particles in slurry. Different media conditions may change the value of the charge of cement particles in the slurry, that is, change the electrostatic repulsion between particles.

② Influence of water reducing agent on workability of fresh mixed concrete

There are many factors affecting the workability of fresh mixed concrete, mainly cement, aggregate, water consumption, the nature and amount of admixture, temperature and other factors. When other conditions are the same, the workability is related to the type and dosage of water reducer. The workability of fresh

concrete is usually measured by the collapse value. After concrete mixing system to pouring need to have a period of transportation waiting and parking time, often make concrete workability becomes poor, resulting in construction difficulties.

Specification

Item	**Unit**	**Standard**
Appearance	/	White powder
Density(23℃)	Kg/m^3	500±50
PH (23℃)	/	6.0±1.0
Solid Content	%	97.0±1.0
Moisture content	%	≤3.0
Water Reducing Ratio	%	≥25
Cl^-	%	≤0.02
Alkali content	%	≤0.3