TECHNICAL DATA SHEET

FLOREY® Sodium gluconate

Water-Reducing And Retarding Admixture

Product Description

Sodium gluconate is a kind of sodium polyhydroxy carboxylic acid, which is also known as sodium hydroxy caproate, which is white or light yellow crystalline granule or powder, easily soluble in water, slightly soluble in alcohol, and insoluble in ether. The product has good effect of retardation and high efficiency water reduction, and is widely used in construction, washing, food and medicine industry. Sodium gluconate meets ASTM C 494/C 494M requirements for Type B, water-reducing, and Type D, water-reducing and retarding, admixtures.

Applications

- Sodium gluconate is an efficient set retarder and a good plasticiser & water reducer for concrete, cement, mortar and gypsum.
- As it acts as a corrosion inhibitor it helps to protect iron bars used in concrete from corrosion
- It is especially suitable for high strength concrete for railway, haven, traffic, bridge and electric power and so on.
- It is suitable for the preparation of high strength, high durability, self-compacting, steel fiber and self-leveling concrete.

Features

- As cement and concrete setting retarder.
- As water reducing agent.
- Reduce the slump loss.
- It is suitable for formulating concrete for hydraulic, marine, port, culvert, tunnel, bridge, road and other projects.
- It is suitable for various mortars.

Benefits

Providing economic benefits to the entire construction team through higher productivity and reduced variable cost.

Product specification

Items	Standard
Appearance	white crystalline powder or granula
Assay	98.0-102.0
Loss on dry w/%	0.40 max
Chloride,w/%	0.02 max
Sulfate ,w/%	0.02 max
Reducing substances, w/%	0.50 max
pH(10% solution)	6.2~7.8
Pb ,ppm	1 max
Arsenic salt ,ppm	2 max

Rate of Hardening: Sodium gluconate is formulated to delay the setting time of concrete throughout its recommended dosage range. Setting time of concrete is influenced by the chemical and physical composition of the basic ingredients of the concrete, temperature of the concrete and ambient conditions. Trial mixtures should be made with actual job materials to determine the dosage required for a specified setting time and a given strength requirement.

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Guidelines for Use

Dosage

1.as retarder: Sodium gluconate can significantly delay the setting time of concrete. When the dosage is below 0.15%, the logarithm of the initial setting time is directly proportional to the dosage, that is, the dosage is doubled and the initial setting time is delayed to ten times, which makes the working time extended from a few hours to a few days without loss of strength. This is an important advantage, especially in hot weather and for longer periods of time.

2.as water reducer: it can enhance workability. Under the condition of constant water cement ratio (W/C), adding sodium gluconate can improve workability. In this case, sodium gluconate acts as a plasticizer. When the amount of sodium gluconate is less than 0.1%, the degree of improving workability is proportional to the amount added.

3.as water reducer: it can improve the intensity. When the cement content remains constant and the water content in the concrete decreases (i.e., the W/C decreases). When the amount of sodium gluconate is 0.1%, the amount of water added can be reduced by 10%..

4.as water reducer: it can reduce the cement content. The water and cement content decreased in the same proportion, while the W/C ratio remained unchanged.

Mixing

Sodium gluconate can be batched with the initial mixing water or as a delayed addition.

Product Notes

Corrosivity–Non-Chloride, Non-Corrosive: Sodium gluconate will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or of galvanized steel floor and roof systems. As it acts as a corrosion inhibitor it helps to protect iron bars used in concrete from corrosion

Compatibility: Sodium gluconate is compatible with most admixtures used in the production of quality concrete, including normal, mid-range and high-range water-reducing admixtures, air-entrainers, accelerators, retarders, extended set control admixtures, corrosion inhibitors, and shrinkage reducers.

For directions on the proper evaluation of sodium gluconate in specific applications, contact us.

Storage and Handling

Storage Temperature: Products should be stored in 0℃-40℃ temperature environment, without direct sunshine, without getting wet in the rain and leaking water, without mixing impurities, without evaporation of water.

Shelf Life: Sodium gluconate has a minimum shelf life of 12 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your us regarding suitability for use and dosage recommendations if the shelf life has been exceeded.

Packaging

This product is 25kg bag and 1000kg ton bag.

Related Documents

Material Safety Data Sheets: Sodium gluconate.

Additional Information

For additional information on Sodium gluconate or its use in developing concrete mixes with special performance characteristics, contact us.

Henan Fuluorui New Materials Co.,Ltd is one of the few technology-based companies working on chemical adjuvant materials for concrete, It has strong R&D capabilities, excellent professionalism, fully automated production lines, rich application experience, and excellent reputation for the R&D, production and application of concrete admixtures and raw materials. There are nearly 500 concrete admixture manufacturers in China that have technical cooperation with our company. Fuluorui has successfully provided ODM and OEM services for customers in North America, Europe, the Middle East, Asia and other markets.

Limited Warranty Notice

FULUORUI warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life.

The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

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