TECHNICAL DATA FOR BS FUTURA PCX 107

Advanced Generation PCE based Superplasticizer for High Performance Concrete

Description of BS FUTURA PCX 107

BS Futura PCX 107 is an advanced next generation Superplasticizer based on Polycarboxylic Ether Polymers integrating Nano-Technology concepts for creating high performance concreting at site and concrete production plants. The active solid contents are 30% or more and it is a chloride free non-toxic and non-flammable material and compatible with all commonly available cements and various blends.

Areas of Application

1) RMC Concrete Units
2) Batching Plants at Sites
3) Production of High Quality Ready Mix Concrete
4) For creating a low water binder ratio, for super plasticized concrete needing high early and long lasting strengths
5) Special requirements such as white topping concrete casting for roads
6) For inducing self-compaction properties when dense or high reinforcements are present

Advantages and Benefits

1) Use of BS FUTURA PCX 107 ensures that the same high quality of concrete is maintained that is designed and specified from Batching Plant to Placement on Site.
2) BS FUTURA PCX 107, allows ready mix units to deliver high quality concrete whenever required for the job site.
3) BS FUTURA PCX 107 allows for production of very low w/c ratios that meets guidelines of high performance concrete as per EN 206-1 without any reduction in workability.
4) Allows for faster placement and early strength development in the concrete mass.
5) Visible improvement in finish of placed concrete.
6) Allows consistency for every batch of concrete delivered.

Properties of BS Futura PCX 107

Appearance	**Light Brown Liquid**
Specific Gravity	1.03 Kg/l
Viscosity B4 Cup @30C	17 ± 1 sec
Shelf Life	12 months from MFG Month
pH Value	8 as per DIN EN ISO 2114
Type	High Performance Plasticizer
Solubility	Soluble in Water

Technology in BS FUTURA PCX 107

BS FUTURA PCX 107 is based on a newer platform as against older generation Superplasticizers which were based on Sodium Naphthalene Formaldehyde, Melamine or Lignosulfonate based technologies.

This new technology of BS FUTURA PCX 107 works on a unique mechanism that greatly enhances the cement molecule dispersion in the concrete mix matrix. Instead of being absorbed by the cement granules as in earlier versions, BS FUTURA PCX 107 allows for a delayed absorption in the mix thus making the particles disperse more effectively. As compared to previous generation Superplasticizers it is now possible to get higher quality mixes with increased rate of strength development and improved workability without delay affecting negatively any of the desired performance requirements.

Dosing Recommendations

On Site or Lab trials will establish the dose of BS FUTURA PCX 107 ranging from 0.25% to 1.50% by weight of cement in normal mix design conditions, the dose will

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vary from site to site and plant to plant based on type of application, type of cement, type of aggregates etc. If you need special dosage development for your project you can connect with our engineers.

Problems from overdose

If BS FUTURA PCX 107 is overdosed in the concrete mix it will create following issues:

a) Setting time of initial and final set will be much delayed
b) The mix will bleed out and rapidly lose workability
c) Plastic shrinkage will increase leading to cracks

In case of little overdose, there won't be much negative effect on the final strength of concrete, in-fact it will achieve better strength than normally admixed concrete from older category of plasticizers, but it has to be carefully compacted and regularly cured. We recommend curing compounds as soon as the green concrete is able to take a coating.

Recommendations on Use

BS FUTURA PCX 107 is a light brown liquid in ready to use form. It has to be introduced in the concrete mix along with the dosing water. **IT IS NOT TO BE MIXED IN DRY CEMENT OR AGGREGATE**. Its effects of plasticising the concrete and water cement ratio reduction are best when it is admixed in the mixer when around 65% to 70% of dosing water has already been added to the mix getting prepared. The mixer should be rolled on high speed for about one and half minutes after adding BS FUTURA PCX 107.

General Specification of Product

BS FUTURA PCX 107 a hyper plasticizer and a high range water reducer super plasticizer with main ingredient of Polycarboxylic Ether in the formulation along with select other components for achieving the desired properties in the concrete mix as per dosage set.

Workability Performance

BS FUTURA PCX 107 when admixed in the concrete mix allows for workability for a minimum 90 minutes at 30 degree centigrade ambient temperature. The loss of workability shall be dependent on type of cement, type of aggregates, initial workability achieved and type of material transport for pouring or pumping location.

Pay special attention to the curing of the poured concrete especially in Tropical dry climate when the weather is windy, arid and hot.

We strongly recommend use of curing agents on all exposed concrete castings to prevent early loss of moisture.

Specification of Supply & Storage

BS Futura PCX is available in Packs 20 Kg & 200 Kg .
The product should be always be stored under shade
Protect from extreme temperatures.
In extreme cold below +5C, some solidification may occur which can be thawed with agitation by an electrical mixer.
Always re-seal the container after use.

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