



AURAMIX 404 CS

High Range Water Reducer / Super Plasticizer Concrete Admixtures (PCE based)

Identification of the Product

AURAMIX 404 CS is Polycarboxylic ether based super plasticizer. This product range has high early strength properties, additionally increase 1–28 days strengths and gives high slump increase with the same amount of water.

This product was designed especially for the concretes which are produced with high clay content aggregates. So, this product has a special structure for the high methylene blue value aggregates. The methylene blue resistance is proportional to the **AURAMIX 404 CS** usage dosage.

Areas of Usage

In worksites, where levelling problems may be faced, and where necessary performance and economic solutions are required without risk of segregation

In slab and foundation concretes, curtain walls, girders and columns, in bridges, in architectural structures

In concrete elements with thin and dense reinforcements

For the production of high strength concrete

For the long slump retention requirement

It can be used as main superplasticizer for the shotcrete applications

Standards

TS EN 934-2 Chart 3.1 and 3.2: High Range Water reducer / Superplasticizer Concrete Admixtures

Features / Advantages

In comparison to concrete without admixture, depending on the applied dosage, reduces water amount of the mixture **min. 12%** without risk of segregation.

Provides significant increase in early and final strength depending on the dosage

Increases the durability of the concrete

Gives smoother surface after levelling

Increases workability when compared with conventional PCE based products

It is suitable to be used in reinforced concrete constructions

Because of high water reduction, increases the resistance of the concrete against water and frost.

Chloride content is <0.1%. Thus, it is suitable to be used in reinforced concrete constructions.

Technical Information

Chemical Content	Based on Polycarboxylic Ether
Density	1.03 – 1.07 kg/l
pH	4.0 – 6.0
Color	Brown
Total Chloride	Maximum 0.1%
Alkali	< 5

Package

Bulk, 1000 kg tank, 220 kg barrel and 30 kg plastic bags

Storing Conditions / Shelf Life



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AURAMIX 404 CS

It is proper to use the product in 12-months after the production date when it is stored in original, unopened and non-damaged packages in between +5°C and + 35°C.

It should be avoided from direct sun light and frost.

If the additive is frosted under +5°C, it should be thawed by waiting at ambient temperature without using direct heating and mixed until it becomes homogeneous. Compressed air should not be used during this operation.

Dosage

Depending on performance expected from the concrete, it is used between **0.6 – 1.4%** of the binding material (cement, micro silica, fly ash) amount.

If dosed over **1.4%**, set retarding may be observed

In order to find optimum admixture dosage, it is recommended to make experimental mixtures in the laboratory because of the different water/cement ratio of the cement and aggregate used.

When it is required, **FOSROC IDEA Construction Chemicals Technical Support** Unit should be consulted

Application Method

After mixing binding material (cement, micro silica, fly ash) and aggregate homogeneously, only 50-60% of the total water which will be added to the mixture is added.

AURAMIX 404 CS is added with the remaining water to the concrete mix.

In order to have the admixture spread homogeneously in the concrete and provide the required performance, the concrete should be mixed for 2-minutes or the period determined in laboratory tests.

Important Subjects

Admixture dosage and application method should be determined in laboratory experiments

The admixture should not be directly poured in dry mix.

Cure of the fresh concrete should be performed properly.

All equipment's should be cleaned after using them. Materials which became rigid and cured can only be taken out mechanically.

When used in higher dosages other than recommended, set retarding may be observed. In this case the surface of the concrete should be kept humid.

Notes

All technical information stated out in this product data sheet are based on laboratory experiments.

Values obtained in site applications may show changes because of environment and material conditions.

Health and Security Information

Users can get physical, ecological, toxicological information and recommendations related to carrying, storing and safe disposal of chemical products form (SDS) of the product.



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