

HM 50



HM 50

High Range Water Reducer /Superplasticizer Concrete Admixtures

Identification of the Product

HM 50 is Polynaphthalene Sulphonate based Superplasticizer. This product range has high early strength properties, additionally increase 7-28 days strengths and gives high slump increase with the same amount of water.

Areas of Usage

In worksites, where leveling 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 and in RCC concretes

In concrete elements with thin and dense reinforcements

In production of precast and pre-stressed construction blocks

***When early strength is required and in the low temperature used as antifreeze (Accelerator)**

For the production of high strength concrete

For applications where fast stripping needed

Standards

TS EN 934-2 +a1 Chart 3.1 and 3.2: High Range Water reducer/Superplasticizer Concrete Admixtures

TS EN 934-2 +a1 Chart 11.1 and 11.2: Set Retarder / 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 14-30% 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 leveling

It does not include Chloride or other components. Thus, it is more suitable to be used in reinforced concrete constructions. Because of high water reduction, increases the resistance of the concrete against water and frost.

Construction Chemicals

Technical Information

Chemical Content

Density

pH

Color

Total Chlorine

Alkali

Min.temp.allowed

Based on SLS / SNF

1,14 - 1,18 kg/L

7,7 - 9,7

Brown

Maximum %0,1

< 5

-15 C

Package

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

First Plant :Baghdad, Tajjat

Second Plant: Baghdad, Al-Obaidi

Third Plant: Sulamani - Kirkuk Road



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Storing Conditions / Shelf Life

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 sunlight and frost.

If the additive is frosted under +5 °C, it should 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 %0.8 - 1,4 of the binding material (cement, micro silica, fly ash) amount.

If dosed over 1,4% in winter months, 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, HMA 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. HM 50 admixture 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 equipments 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 (MSDS) of the product.

