

# PASS 450

## GEO CHEMICAL PASS 450

High Range Water Reducer/ Super Plasticizer Concrete Admixtures.  
Based on polycarboxylate High performance Concrete Admixture.

### Description

GEO CHEMICAL PASS 450 admixture are Super plasticizers formulated that are based on Polycarboxylate acidic, This product from selected polymers specially designed to enable the water content of the concrete perform more effectively with higher developed early strength with flow able concrete to achieve highest concrete durability, this effect can be used to improve workability, to increase ultimate strengths or to facilitate a reduction in the cement content while sustaining mix properties, PASS 450 gives high slump increase with the same amount of water .

### Application

PASS 450 admixture is used in condition such as:

- # High density and impermeable concrete through very high water reduction.
- # High strength concrete.
- # Low water cement ratios.
- # Self compacting concrete.
- # To produce high quality concrete of improved durability and water tightness.
- # In slab and foundation, tunnel box, V funnel, precast, curtain walls, girders, and columns, in bridges, in architectural structures and in RCC concretes.
- # To concrete elements with thin and dense reinforcements.
- # To pre cast concrete.
- # Improved cohesion allow for use in mass concrete pours and piling.

### Advantage

- # Optimizes cement utilization.
- # Improves shrinkage and creep behaviors.
- # High reduction in water without loss of workability, with flow concrete.
- # Improved early and long term strengths.
- # Gives smooth surface after leveling, self-leveling.
- # It is more suitable to be used in reinforced concrete constructions.
- # Increases the resistance of the concrete against water and frost.

### Standards

- # BS EN 934-2 Chart 3.1 and 3.2 : High Range Water Reducer/ Superplasticizer Concrete Admixtures.
- # BS EN 934-2 Chart 11.1 and 11.2 : Set Retarder /High Range Water Reducer/ superplasticizer Concrete Admixtures.
- # Type G

### Package

PASS 450 is available in 200 liter barrel, 1000 liter bulks supply, tanker.

### Dosage

PASS 450 admixture are depending on performance expected from the concrete, it is between (% 0.8- 1.8) of the binding material (cement, micro silica, fly ash) amount.

If dosed over %.1.8 in winter months, set retarding may be observed, in order to find optimum admixture dosage, it is recommended to make experimental and aggregate used.

When it is required, GEO CHEMICAL Construction Chemicals Technical Support Unit should be consulted.

### Compatibility

PASS 450 admixture is compatible with other GEO CHEMICAL admixtures used in the same concrete mix, if more than one type of admixture will be used in the concrete mix, they must be dispensed to the concrete separately.

### Cleaning

PASS 450 admixture can be washed with fresh cold water, and should not be allowed to enter sewers or open bodies of water.

## Technical Properties

Color	Yellow - to waxy
Freezing	-10 c
Chemical content	Polycarboxylate polymer
pH	4-6
Density	1.08 - 1.1
Chloride content	< % 0.1
Alkali	< 5

## Storing Condition

It is store in dry condition, PASS 450 series has minimum shelf life of 12 months from date of manufacture if stored properly in its original unopened packing.

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.

## Security Information

All technical information stated out in this product data sheet are based on laboratory experiments, Users can get physical, toxicological, geological information and recommendations related to carrying, storing and safe disposal of chemical products from (MSDS) Material Safety Data Sheet of product.

PASS 450 should not come into contact with skin and eyes, that is classified as hazardous material .

In case of contact with eyes wash immediately with plenty of water and seek medical advice promptly.

## Fire

PASS 450 is nonflammable

