

SUPERPLAST

(Superplasticizer)

"Superplast" New High — Range Concrete Water Reducer Superplasticizer.

"Superplast" is a new type of high-range water-reducing concrete admixture that is far more powerful than ordinary reducing aids. This superplasticizer greatly reduces the amount of water normally required to impart workability to a concrete mix.

"Superplast" imparts these benefits to concrete producers:

- Permits lowering of water-cement ratio.
- Quicker and easier mix placement.
- Increases early and ultimate compressive strength from water reduction.
- Enables lowering of cement content while maintaining strength.
- Allows quicker mold turnover time for precasters.
- Minimizes energy required for curing.
- Improves finish of cast concrete by minimizing honeycombed surface.

How it Saves

By cutting cement

"Superplast" can cut cement costs by reducing the amount needed to reach a specified strength.

For example : A 20% water reduction on a concrete mix based on seven sacks of cement would reduce the original water-cement ratio of 0.44 to 0.36. This would consequently increase the compressive strength on an average of 40% at 24 hours.

But instead of opting for this added strength, one can lower the cement content by 15% as well. This will re-establish the water - cement ratio and maintain original compressive strength.

How it works:

"Superplast" is a dispersing agent that promotes the separation or deflocculation of the cement particles by overcoming the cohesive forces that attract them. This effect is evident on other types of cementitious materials such as fly ash.

The strong dispersing action of "Superplast" upon the cement causes the concrete to flow much easier than a conventional mix. This effect is called plasticizing.

As a superplasticizer, "Superplast" gives the concrete mix optimum plasticity and allows it to be placed better at the working site. In addition, the use of "Superplast" allows a lowering of the water-cement ratio without loss of slump. This results directly in an increase of early and ultimate compressive strength of the concrete.

"Superplast" is non-foaming and non-toxic. Because it's synthetic, it always exhibits uniform properties.

Its temperature stability is over 150oC(300oF). When used at normal suitable dosage levels, it won't significantly affect the concrete's heat of hydration. Nor does it contribute to reinforcement corrosion or mold growth.

Properties:

1. Appearance.....Tan coloured powder
2. Ph of 2% solution.....8/9
3. Activity.....90% maximum
4. Solubility in water.....Good