

## High Range-Super Plasticizer

### Overview

Superplasticizers, also known as high range water reducers, are chemical admixtures used where well-dispersed particle suspension is required. These polymers are used as dispersants to avoid particle segregation (gravel, coarse and fine sands), and to improve the flow characteristics (rheology) of suspensions such as in concrete applications. Their addition to concrete or mortar allows the reduction of the water to cement ratio, not affecting the workability of the mixture, and enables the production of self-consolidating concrete and high-performance concrete.

### Benefits

This effect drastically improves the performance of the hardening fresh paste. The strength of concrete increases when the water to cement ratio decreases. However, their working mechanisms lack a full understanding, revealing in certain cases cement-superplasticizer incompatibilities.

### Technical Specifications

Superplasticizers must comply with the requirements of ASTM C 494, Types A & F admixtures. They must also comply with the requirements of AASHTO M 194.

### Uses

Superplasticizers are commonly used in high performance concrete, general Ready Mixed Concrete, heavily reinforced concrete, flatwork and mass concrete, minimum water content concrete, low water/cement ratio concrete, high slump and flowable concrete.



### Plants

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