



Technical Data Sheet

Spectra 446P Mid-Range Water Reducing Concrete Admixture



Description

Spectra 446P is a new generation polycarboxylate based high performance superplasticizer. It is formulated from blend of polycarboxylate polymers using state-of-the-art technologies to produce a superplasticizer for promoting high early and ultimate strength with high slump retention values.

Spectra 446P conforms to the requirements of ASTM C494 Type A,C and E.

Application

Spectra 446P provides high slump, high early strength, and ultimate strength concrete. Ready mix producers, Civil Contractors and DIY professionals use **Spectra 446P** in the production of concrete for structures such as slabs and foundations, walls, columns, slender components with densely packed stressed concrete, bridges, and cantilever structures.

Advantages

- Higher early and ultimate compressive strengths.
- Provides extreme workability to concrete mixes for easy placing, less vibration and reduces risk of segregation.
- Increase the fluidity of concrete at lower water cement ratio with minimum slump loss due to the higher polymer adsorption and steric hindrance effect.
- High density and impermeable concrete through very high water reduction.
- Improves shrinkage and creep behaviors.
- Minimizes segregation and bleeding problems by improving cohesion.

Technical properties

Appearance	Lumps free Liquid
Specific Gravity	1.05 ± 0.02
Total Chloride Content	Nil

Method of Use

Field Applications:

Spectra 446P can be added to the mixing water prior to its addition to the aggregates or directly to the freshly mixed concrete (the plasticizing effect is more pronounced).

For ready Mix Concrete, **Spectra 446P** can be added to the concrete immediately prior to discharge and after further mixing has taken place for three minutes.

Dosage Rate

The guidance dosage of **Spectra 446P** is 0.50 to 2.5 liter per 100kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Representative trials should be conducted to determine the optimum dosage of **Spectra 446P** to meet the performance requirements by using the materials and conditions in actual use.

Effects of overdosing:

When overdosing beyond the design limit occurs, may result in increased the workability of concrete and/or heat of cement hydration

Also, the air content maybe increased.

During this period, the concrete must be kept moist to prevent premature drying out and ensure design strengths properties are not impaired.

Storage

Spectra 446P shelf life is 6 months from date of manufacture.

Cleaning

In case of spillage, wash it with clean water.

Packaging

Available in bulk, 1000 Lt. Tote or in 210Lt. drums

Disclaimer:

We hope that the information herein will be helpful. The data is based upon knowledge considered to be accurate and true and is offered for the user consideration, investigation and verification in the application intended. We do not warrant the results or performance attained due to the nature of the influence of other constituent components in the application.



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Cautions

Health and safety

Spectra 446P is not a fire or health hazard.

If, however, it is spilled, the floor will become slippery and should be washed down with water immediately but should not be left to enter sewers/surface or ground water, in case of uncontrollable situation, wash it with plenty of water to dilute. In case of eye contact or ingestion, seek medical attention without delay. Do not dispose of into water or soil but according to local regulations.

Fire

Spectra 446P is non-flammable.



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