



Technical Data Sheet

Spectra 460ES

Mid-Range Water Reducing & High early strength Concrete Admixture

Description

Spectra 460ES is a high performance early strength concrete super plasticizing admixture based on polycarboxylic ether polymers with early strength additives to achieve early strength at low temperatures. This effect can be used in high strength concrete and flow able concrete mixes, to achieve highest concrete durability and performance.

Spectra 460ES complies with ASTM C494 Type F & E, depending on dosage used.

Application

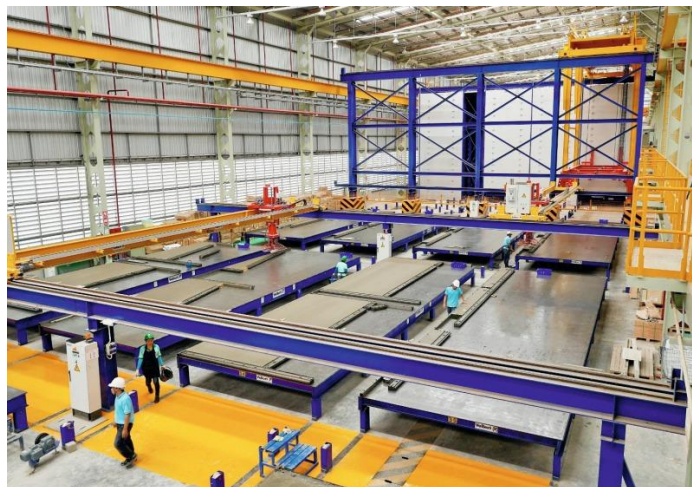
- Pre-cast concrete.
- High early strength and high performance concrete.
- Structures with congested reinforcement.
- Improved cohesion allow for use in mass concrete pours and piling.

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 and Color	Variable
Specific Gravity	1.14± 0.02
Total Chloride Content	Nil



Method of Use

Field Applications:

Spectra 460ES 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 460ES** 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 460ES** is 0.75 to 2.25 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 460ES** to meet the performance requirements by using the materials and conditions in actual use.

Effects of overdosing:

When overdosing beyond the design limit occurs, the set retarding effects increases and may result in increased air content. During this period the concrete must be kept moist in order to prevent premature drying out and ensure design strengths properties are not impaired.

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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Storage

Spectra 460ES 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

Cautions

Health and safety

Spectra 460ES 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 460ES is non-flammable.

E n v i r o c o n C o n s t r u c t i o n P r o d u c t s L L C



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