Concrete Admixtures - High Range Water Reducers

EUNICEM 203

Concrete superplasticizer

Product Description

EUNICEM 203 is a liquid concrete superplasticiser that has been developed to allow concrete to attain particularly high performance in both the plastic and hardened states . It is particularly useful for imparting extreme workability to concrete mixes so that large or difficult pours can be made. Alternatively, EUNICEM 203 can be utilized to effect large water reductions to achieve high early and subsequent strength. EUNICEM 203 is an extremely powerful defflocculating agent and performs by dispersing cement into its primary particles dramatically increasing flow characteristic s of the cement paste.

Main application areas are:

- High quality concrete for durable structures.
- Reinforced and pre-stressed precast elements.
- Bridge decks and structural elements.
- Precast or in-situ structures.

EUNICEM 203 conforms to the requirements of ASTM C494 Type A and F, and EN _934-2.

Advantages

- High compressive strength concrete especially at early ages.
- Low water/cement ratio , reduced shrinkage,less water absorption, excellent durability.
- Good surface finish , providing highly aesthetic concrete appearance.
- Plastic concrete exhibits high cohesion , fluidity and flow-ability.
- Re-tempering at site to adjust workability.
- Savings in energy consumption when steam curing is employed.

Typical Properties

Appearance:
Dark brown liquid.

Specific Gravity:
1.16 at 20°C.

Air Entrainment:
Nil.

Chloride Content:
Nil.

Storage Life in Manufacturer's Drums: 12 months from date of manufacture.
Bulk Storage: 12 months from date of delivery.

Compatibility

With cements:
EUNICEM 203 is compatible with all Portland, Pozzolanic and blast furnace cements. It is also compatible with concrete containing fly ash and or silica fume.

With other admixtures:
EUNICEM 203 is compatible with all ECA Construction Products admixtures and particularly can be used in conjunction with air-entraining agents. It is advisable to add all admixtures separately to a cementitious mix.

Method of Use

EUNICEM 203 is supplied ready for use, and should be added to concrete mixes either during the mixing cycle or at the same time as the water, or alternatively it should be added in its supplied form to a normal concrete mix a few minutes before the pour is made.In the latter case a mixing cycle of at least 2 minutes should be provided to ensure complete dispersion.

Addition Rates Range
Range: 0.8% - 3.0%[v/w] by weight of cement

The optimum dosage is assessed after preliminary trials depending upon the actual mix constituents

and specifications required.

Effects of Overdosing
Serious overdosing of EUNICEM 203 will generally produce a concrete mix of even greater workability and set retardation but no increase in air entrainment. In cooler weather this retardation will be further increased. If intentional or accidental increases above the recommended addition rates are employed, care must be taken to allow for the effect on the stripping time of forrnwork. In such cases, however, provided the concrete is properly cured the ultimate strength will generally be higher than for normal concrete.

Dispensing
It is preferable that liquid admixtures for concrete should be introduced into a mixer by means of automatic dispensing equipment, details of which can be supplied upon request.

Health and Safety
For further information see the EUNICEM 400KO Material Safety Data Sheet or European Concrete Additives.

Packaging
EUNICEM 400KO is supplied in 1000 liter return-able containers. Alternatively, bulk deliveries can be arranged.

Storage

EUNICEM 203 should preferably be stored protected from frost. If the product does become frozen it should be carefully mixed after thawing out to restore it to its normal state .

Technical Service

The Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

Contact Information

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