EUNICEM SP6(S)

Concrete superplasticizer

Product Description

EUNICEM SP6(S) is a high performance superplasticizer designed specifically to impart high workability to concrete containing microsilica, while possessing excellent slump retention properties. It can also be used in normal concrete mix designs where high workability is required for long periods, to aid placement, such as piling concrete, congested areas of reinforcement, etc. EUNICEM SP6(S) is based on selected raw materials and is manufactured under controlled conditions to give a consistent product. It is formulated from specially designed polymeric sulphonate materials and naturally derived products. Depending on the addition rate, EUNICEM SP6(S) will conform to Type A, F, D and G materials of ASTM designation C494 and complies with BS 5075 Part I and III.

Advantages

- Effective over a wide range of cement contents and w/c ratios.
- Aids concrete cohesion.
- Imparts excellent slump retention over prolonged periods of time.
- Allows greater time for placement and compaction, especially in concrete containing microsilica.
- Can be used to achieve large water reductions in concrete, to obtain high early and ultimate compressive strength gains, as required in precast/prestressed concretes.

Typical Properties

Appearance: Dark brown liquid
Specific Gravity: 1.21 at 20°C
Air Entrainment: Air content of concrete will normally be increased by 1% - 2%
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 SP6(S) can be used with all types of Portland, Pozzolanic and Blast Furnace cements. It can also be used in mix designs containing fly ash, and/or microsilica.
With other admixtures: EUNICEM SP6(S) is compatible with other admixtures, provided they are added separately to the mix. The performance of the material may, however, be affected by the presence of other chemicals if they are mixed prior to addition to the concrete mix.

Method of Use

EUNICEM SP6(S) is supplied ready for use. It should be added to the concrete mixes during the mixing process at the same time as the water. It should not be added directly to the cement. For mixes containing microsilica, EUNICEM SP6(S) should be incorporated into the mix after the addition of the microsilica, at the same time or just after the mix water. EUNICEM SP6(S) should not be added to slurrified microsilica before addition to the mix.

Addition Rates Range

0.4% - 3.0% by weight of cement. The performance of EUNICEM SP6(S) is best assessed after preliminary trials in the laboratory or on site, using the actual mix constituents under consideration, to determine the optimum dosage and effect on concrete properties such as compressive strength, setting times, workability retention, etc. when these are of consequence. As a guide to these trials, an addition rate of 400 - 3000ml EUNICEM SP6(S) per 100 kg cement is recommended. For microsilica concrete mixes, addition rates greater than 1500ml per 100 kg

cement are recommended, but lower dosage levels may be feasible following trial mixes and depending upon w/c ratios.

Effects of Overdosing
Overdosing of EUNICEM SP6(S) will generally produce an increase in workability and a slight increase in air entrainment, which will be accompanied by a delay in the concrete setting time. However, provided the overdosed concrete is cured properly, the ultimate strength will generally be higher than normal concrete. The effects of overdosing with respect to set retardation are increased when sulphate resisting cement (Type V) is used in the mix design.

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

Health and Safety
For further information see the EUNICEM SP6(S) Material Safety Data Sheet, or consult our technical department.

Packaging
EUNICEM SP6(S) is supplied in 1000 liter returnable containers. Alternatively, bulk deliveries can be arranged.

Storage
EUNICEM SP6(S) should be stored in sealed conventional containers and protected from the elements.

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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v01-02-2022