

CasTech SP 422

High Range Superplasticizer with Workability Retention

Technical Data Sheet

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Description

Castech SP 422 is high range super plasticizer for concrete, based on selected and blended organic polymer. It is specially designed for use at high ambient temperatures and improves the dispersion of cement particles in the concrete mix, enhancing the consistency of the concrete.

Uses

- Flowable concrete mixes
- High reinforced concrete
- Ready mixed concrete in hot weather
- Pumped concrete
- Conventional concrete applications

Advantages

- Good workability retention.
- Increases durability by reducing permeability.
- Water reduction significantly improves compressive strength.
- Increase cohesive strength without increasing cement content.
- Improve cohesion and particle dispersion minimizes segregation and bleeding and improves pumpability.

Typical Properties at 25°C

Property	Value
Colour	Brown Liquid
Specific Gravity	1.22 ± 0.02 @ 25 °C
Chloride Content	NIL to BS 5075

Standard

Castech SP 422 complies with ASTM C 494 Type G and BS EN 934-2 1988.

Dosage

Dosage rates vary depending upon the amount of plasticity and/or water reduction desired. Recommended dosage range from 0.50 To 2.0 litres per 100 kg of total cementitious material. Other dosages may be recommended in special cases according to the specific site conditions. It is highly recommended that trial mixes be prepared to determine the optimum dosage for your specific performance requirements.

Overdosing

Exceeding the recommended dose will result in an increase in retardation and workability but provided that adequate curing is maintained, the ultimate strength of the concrete will not be impaired. The effects of overdosing will be increased if cement replacement materials or type v cement is used. Overdosing may also increase air entrainment which tends to reduce strength

Curing

Curing methods to protect concrete surfaces should be adopted.

Compatibility

Castech SP 422 is compatible with other naphthalene based admixtures used in the same concrete mix, provided they are added to the concrete separately. Please consult our technical department for more information and for guidance.

Castech SP 422 is suitable for use with all types of Portland cements and cement replacement materials, such as PFA, GGBS and microsilica.

Dispensing

Castech SP 422 is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticizing effect and water reduction are higher if the admixture is added to the concrete after 50 to 70% of the mixing water has been added. The addition of Castech SP 422 to dry aggregate or cement is not recommended.

Storage and Shelf Life

Up to 1 year in unopened original packing, protected from extremes of heat and cold and stored under shade.

Precaution

Castech SP 422 is water-based liquid and is not a fire or health hazard. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Spillages should be washed down immediately with cold water. For further information refer to the Material Safety Data Sheet.

Warranty

CASTECH products are guaranteed against defective materials and manufacture and sold subject to **CASTECH** standard terms and conditions of sale. Whilst **CASTECH** endeavors to ensure that any advice, information or recommendation given is correct, the company cannot accept any liability either directly or indirectly arising from the use of its products, since the company has no control over the application of its products. Information contained in this document is given on the best current knowledge. **CASTECH** policy is one of continuous improvement and the company reserves the right to change the company products without prior notice.

Head Office: CASTECH MIDDLE EAST FZE, P6-014, Sharjah Airport Free Zone, Sharjah, UAE
P.O. Box: 121661, Tel.: +971-6-5489207, Fax: +971-6-5579879
Email: info@castechchem.com
www.castechchemicals.com