

Dr.Hiper 400

High Range Super-Plasticizing Admixture Based on Polycarboxylate Ether

Description

Dr.Hiper 400 is a third generation superplasticizer based on polycarboxylate ether. It is designed to provide the highest performance of water reduction, while providing excellent flow ability during placement and extreme slump retention without affecting initial setting time.

Dr.Hiper 400 disperses cement particles by stearic hindrance and electrostatic repulsion forces .,it is used for production of high quality concrete with high water reduction and excellent workability, usually added to concrete mix to obtain high fluidity for self-Compacting concrete, precast concrete and ready mix concrete.

Applications

Dr.Hiper 400 has been designed for the production of a wide range of concrete mixes from conventional to self-consolidating concrete and formulated to impart improved workability to the concrete and to achieve high early and ultimate compressive strength.

- Increased early strength development.
- Ultimate strength and durability is increased through reduced permeability.
- Improves frost and carbonation resistance of the concrete
- Has excellent concrete rheology and handling properties
- Produce concrete with high levels of workability without segregation.
- Lower drying shrinkage.
- Increased productivity, resulting in reduced labor costs
- Structures with congested reinforcement.

Advantages

Dr.Hiper 400 was designed to produce super high strength concrete and flowable concrete in a variety of applications.

- Pre-cast industry
- SCC Concrete
- Ready-mix Concrete
- Convention concrete production
- For high levels of concrete pumping
- High performance concrete
- Concrete requiring long workability retention



Properties

Appearance: Light yellow colored liquid
Specific gravity: 1.085 + 0.02 @ 25 °C
pH: 4.7 ± .03

Standards

Dr.Hiper 400 complies with ASTM C 494 Type F & G
Water soluble chloride: nil according to BS EN 934-2

Dosage

Dosage rates vary depending upon the amount of plasticity and/or water reduction desired.
Recommended dosage range from 0.7 To 1.5 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.

Mixing

Dr.Hiper 400 is a ready to use liquid admixture to be added to the concrete as a separate component. **Dr.Hiper 400** is poured into the concrete mix right after the addition of at least 80% of mixing water, when all materials are wetted.
Avoid adding the admixture to the dry aggregates. Laboratory trials should be made with normal concrete mix design, adopting the same materials and conditions to be implemented.

Compatibility

Dr.Hiper 400 is compatible with standard **Dr.Hiper** concrete admixtures and it should not be mixed together with other admixtures prior to addition .it is preferred to be added with the mixing water .

Dr.Hiper 400 is not compatible with PNS based Superplasticizer.

Storage

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

Precautions

Dr.Hiper 400 is not a fire or health hazard. Spillages should be washed down immediately with cold water.