

SASPlast SP505

New Generation Polycarboxylate based High Performance Superplasticizer

PRODUCT DESCRIPTION

SASPlast SP505 is new generation polycarboxylate ether for high performance concrete mixes with very low water to cement ratios, high compressive strengths, long slump retention and self compacting concrete.

SP505 is specifically designed for the production of high performance and self-consolidating concrete mixes by significantly reducing water-cement ratio and provides excellent results in flowability and improvement in both fresh and hardened concrete properties.

AREAS OF APPLICATION

- To produce Self Consolidating Concrete.
- Highly Flowable Concrete especially recommended for Deep foundations such as piles, piers.
- Ready mix concrete with very low water to cement ratio and extended slump retention.
- To produce High strength and High performance Concrete.
- It provides good pumpable concrete for Hot weather Concreting.

BENEFITS

- It makes possible major reduction in water to cement which allows the production of High Strength Concrete without excessive cement content.
- Workability retention for longer period helps the slump loss in case of Hot weather and long haul

Concreting. (More than three hours depending on the dosage, ambient temperature, quality of ingredients and Mix Design).

- Used in the production of flowing concrete with lower pumping pressure.
- Suitable for Highly Reinforced and precast prestressed concrete due to high flow characteristics and its also chloride free.
- Low water to cement results in very high early and ultimate strength.

WORKABILITY

SP505 ensures the flowing concrete remains workable in excess of 240 minutes @ 25°C. Workability loss is dependent on surrounding Temperature, Type of Cement, Nature of Aggregates, method of transport and initial workability.

COMPATIBILITY

SP505 is compatible with all types of Portland cements, SRC cements and other cementitious materials including PFA, GGBS and microsilica.

SP505 is compatible with all SAS concrete admixtures except **Naphthalene based**.

All SAS admixtures should be added separately to concrete. Do not mix different admixtures prior to addition.

SP605 does not entrain any air voids into the concrete but even reduces them.



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TECHNICAL PROPERTIES

Specific Gravity	:	1.13 ± 0.02@ 25°C
Appearance	:	Colourless Liquid
Air Entrainment	:	1 - 2% depending on Dosage
Chloride Content	:	Nil - Tested to B.S. 5075
Freezing	:	0°C, Mix before use

CONFORMITY

SP605 confirms to the following standard.

ASTM C - 494 - Type F &G, B.S 5075 – Part 1 and ASTM C - 1017

DOSAGE

Recommended dosage range 0.5 – 3.5 % of cement weight. The actual dosage rate applied can exceed the recommended dosage range on common mix design and should be determined in preliminary tests.

Further regulations on maximum dosage rates should be observed.

METHOD OF ADDITION

SP505 is supplied as a ready to use dark brown liquid. SP505 can be added to concrete in the mixing cycle after the addition of 60% water or it can be added along with the gauging water. Care must be taken not to add SP505 to dry mix.

SP505 can also be added a few minutes before the actual pouring of concrete for Superplasticizing effect with lower dosage.

EFFECTS OF OVER DOSAGE

- Results in increased workability
- Slightly higher entrainment
- Delayed Setting

Reason for overdosage must be ascertained to avoid recurrence. Anyway, overdosing will not adversely affect the overall performance of the concrete mix, provided proper curing to be done. Also formwork removal should be delayed to allow the setting. In most cases the compressive strength is more than compared to controlled concrete.

SP505 preferably dispensed by using automatic dispensing equipment.

HEALTH & SAFETY

SP505 is non-hazardous. It is always advisable to avoid contact with skin or eyes. If contact with skin wash with water. Wear protective goggles and hand gloves while handling. If swallowed seek immediate medical attention.

PACKING & STORAGE

SP505 is available in 200 Litre and in bulk to site installed storage tanks. SP505 should be stored in cool, shaded warehouses. Shelf life is 12 months.

Before using, homogenize sample by shaking or mixing with a mixer.

After thawing, the product must be used after mixing.