

ALFAPLAST SP 990 (M)

High range water reducing and slump retaining superplasticizer for flowing concrete

DESCRIPTION

ALFAPLAST SP 990 (M) is a specialized formulation of synthetic polymers intended to provide collapsed slump, flowing concrete with workability retaining properties.

ALFAPLAST SP 990 (M) disperses by electro kinetic action in the concrete mix, enabling the water phase of the concrete to perform more effectively. ALFAPLAST SP 990 (M) does not contain calcium chloride or any other ingredients that would promote the corrosion of steel.

USES / PRIMARY APPLICATIONS:

ALFAPLAST SP 990 (M) significantly improves fresh and hardened concrete properties and is perfect for:

- ◆ Reinforced concrete.
- ◆ Long-distance transportation.
- ◆ Hot weather concreting to extend workability.
- ◆ Ready mixed concrete.
- ◆ Low W/C ratio concretes.
- ◆ Mass and flow-able concreting such as bridge decks, parking structures, dams, tunnels, airports, high-rise building pumping of concrete at height mass concrete pours with improved cohesion.

ADVANTAGES / FEATURES AND BENEFITS:

- ◆ Produces "flowing" concrete with controlled delay of slump loss and workability.
- ◆ Reduces the incidence of honeycombing and cold joints.
- ◆ Reduces segregation and bleeding in plastic concrete.
- ◆ Reduces thermal peaks and permeability.
- ◆ Produces "flowing" concrete, significantly reduces concrete placement time and cost.
- ◆ Improves trowel ability and surface finish.
- ◆ Increases ultimate compressive strength and other strength developing properties.
- ◆ Greatly reduces water requirements.
- ◆ Greatly improves durability and pump-ability of material for easy placement.
- ◆ Reduce water contents would be of benefit to reduce permeability.

STANDARDS:

ASTM C494	Type B, D, F & G
BS 5075	Part 1
WRC	Used in portable water

TECHNICAL SUPPORT:

Al Falah Chemicals provides a technical advisory service for on-site assistance and advice on mix design, product selection, evaluation trials and dispensing equipment.

DOSAGE:

The optimum dosage of ALFAPLAST SP 990 (M) to meet specific requirements should always be determined by site trials with different combinations of concrete ingredients. The normal dosage range is 0.50% to 1.50% by weight of cementitious material. For high performance concrete consumption, the dosage range is 1.50% to 2.50% of total cementitious material.

DIRECTIONS FOR USE / APPLICATION:

ALFAPLAST SP 990 (M) can be added to the initial batch water or directly on the freshly batched concrete. However, better results have been observed batching directly on the freshly batched concrete. It should not come into contact with dry cement or other admixtures until mixed thoroughly with the concrete batch. For "flowing" concrete, charge all concrete material into the mixer and mix five minutes or 70 revolutions to the initial specified slump. Add ALFAPLAST SP 990 (M) and mix an additional 3 minutes

TECHNICAL DATA

Appearance	Brown Liquid
Specific Gravity	Typically 1.17 - 1.19 @ 25°C
Chloride content	Nil to BS 5075 & BS:EN934-2
Air entrainment	Typically less than 2% additional air is entrained at normal dosages.
Alkali content	Typically less than 5.0 g. Na ₂ O Equivalent / litre of admixture.

STANDARDS:

ASTM C494	Type A,B, D, F & G
BS 5075	Part 1
WRC	Used in portable water

PACKING:

Supplied in Storage	Drums / IBC Tank Dry, Frost free, out of direct sunlight.
Shelf life	12 months, when stores as above
Hazard class	No dangerous goods. Observe Material Safety datasheet

COMPATIBILITY:

ALFAPLAST SP 990 (M) is compatible with all types of cement complying with international standards. It can be used in combination with the following admixtures and additives.

- ◆ Air entraining admixtures
- ◆ Anti-freezing admixtures
- ◆ Pozzolan (Micro silica, flyash, GGBFS)
- ◆ Synthetic fibers
- ◆ Alkali silica reaction control admixtures
- ◆ Waterproofing admixtures