



# ALFAPLAST SUPER 100

Multi purpose high range water reducing admixture based on PCE Technology

## DESCRIPTION

ALFAPLAST SUPER 100 is differentiated from conventional superplasticisers in that it is based on a unique carboxylic ether polymer with long lateral chains. This greatly improves cement dispersion. At the start of the mixing process an electrostatic dispersion occurs but the presence of the lateral chains, linked to the polymer backbone, generate a steric hindrance which stabilizes the cement particle's capacity to separate and disperse. This mechanism considerably reduces the water demand in flowable concrete.

ALFAPLAST SUPER 100 combines the properties of water reduction and workability retention. It allows the production of high performance concrete and / or concrete with high workability.

## USES

- ◆ High entry and ultimate strength concrete
- ◆ High performance concrete for durability
- ◆ Production of Rheodynamic concrete
- ◆ High workability without segregation or bleeding
- ◆ Concrete containing pozzolans such as microsilica, GGBFS, PFA including high volume fly ash concrete
- ◆ Long distance transportation
- ◆ In hot weather to extend workability
- ◆ Self compacting concrete

## ADVANTAGES

- ◆ Marked increase in early & ultimate strengths higher E modulus
- ◆ Improved adhesion to reinforcing and stressing steel
- ◆ Better resistance to carbonation and other aggressive atmospheric conditions
- ◆ Lower permeability - increased durability
- ◆ Reduced shrinkage and creep
- ◆ Compatible with all type of cement including sulphate resisting
- ◆ Improves pump-ability of the material
- ◆ Improves cohesive properties of concrete to reduce segregation & bleeding
- ◆ Reduce the placing problems in hot weather concrete

## 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 SUPER 100 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. The normal dosage range is between 0.50 to 1.50 liters / 100 kg of cementitious material.

## TECHNICAL DATA

Appearance	Light Brown Liquid
Specific gravity	Typically 1.05 - 1.06 ± 0.005 at 20°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 <sub>2</sub> O Equivalent / liter of admixture

## STANDARDS

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

## PACKAGING

Supplied in	Drum / IBC Tank
Storage	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 SUPER 100 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 admixture
- ◆ Pozzolanz (Micro silica, flyash, GGBFS)
- ◆ Synthetic fibers
- ◆ Alkali silica reaction control admixture
- ◆ Waterproofing admixture

## STORAGE / SHELF LIFE

This Product must be stored where temperatures do not drop below +5°C, If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurized air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage consult your local Alfalah representative.

## PRECAUTIONS

### Health and Safety

This product does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes.

Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

For further information consult the Material Safety Data Sheet available for this product.

## FIRE

This product is water based and non-flammable

### STATEMENT OF RESPONSIBILITY (Disclaimer)

The technical information and application advice given in this Alfalah Chemicals publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

### NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Alfalah Chemicals either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Alfalah Chemicals, are responsible for carrying out procedures appropriate to a specific application.

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American Concrete Institute