



# ALFAPLAST SPA440

## Water reducing dynamic strength super plasticizer & accelerator

### DESCRIPTION

ALFAPLAST SPA440 (Dynamic Strength Accelerator) is a naphthalene base non-chloride, water-reducing admixture for concrete specifically designed to address the fast-track construction needs of the concrete industry.

ALFAPLAST SPA440 makes possible major reductions in water cement ratio which allow the production of high strength concrete without excessive cement contents.

### USES

- ◆ To provide excellent acceleration of strength gain at early ages and major increase in strength gain at all ages by significantly reducing water demand in concrete mix.
- ◆ Particularly suitable for precast concrete and other high early strength requirements.
- ◆ To significantly improve the workability of site mixed and precast concrete without increasing water demand.
- ◆ To provide improved durability by increasing ultimate strength and reducing concrete permeability.

### ADVANTAGES

- ◆ High range water reducer designed to obtain rheoplastic concrete with slump at least 100mm, without segregation.
- ◆ The increase in strength, especially evident at early ages remains at later ages, both in air cured and steam cured processes.
- ◆ Act catalytically to increase the rate of hardening of cement particles thereby leading to higher early strength

### 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 SPA440 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 0.80 to 1.20 liters / 100 kg of cementitious material.

### TECHNICAL DATA

Appearance	Brown Liquid
Specific gravity	Typically 1.180 to 1.185 ± 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 A, D, F & G
BS 5075	Part 1
WRC	Used in portable water

### PACKAGING

Supplied in	Drum
Storage	Avoid to place direct to sunlight and always store in shady areas
Shelf life	12 months, when stores as above
Hazard class	No dangerous goods. Observe Material Safety datasheet

### COMPATIBILITY

ALFAPLAST SPA440 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