



## CICO PLAST SUPER-HS K504

### CONCRETE SUPERPLASTICISER/HIGH RANGE WATER REDUCING ADMIXTURE

**CICO PLAST SUPER- HS K504** is a new generation concrete admixture based on modified Sulphonated Naphthalene Formaldehyde (SNF), combining the properties of superplasticiser with high degree of slump retention characteristics, high range water reducer and also acts as waterproofers for concrete. This product is specially designed where natural sand as well as crushed sand is used.

#### Product Specification:

**IS:9103-1999, IS:2645-2003 and ASTM C-494 Type F&G BS EN 934**

#### USES

**CICO PLAST SUPER - HS K504** is used for producing extremely flowing concrete, pumped concrete, pre-stressed, pre-cast high strength and dense concrete.

#### APPLICATION

- At locations with congested reinforcements, thin slender section or any other locations, where improved workability and high strength is required.
- Pump concreting as it improves the lubricating properties.
- Roof slabs for both residential as well as industrial building.

- High grade to low grade concrete to improve the cohesion.
- Water retaining structures

#### ADVANTAGES

- Improves the workability of concrete without increasing water.
- Improves both early and ultimate strength without increasing cement content and without reducing workability.
- Internal friction and thixotropy of the mix is reduced to a minimum without the risk of segregation, thus making concrete pumpable without formation of nesting.
- Produces self-compacting concrete which can be poured around congested reinforcement and requires little or no vibration.
- Significant water reduction minimizes shrinkage crack thereby produces close textured impervious high strength concrete with improved durability and surface finish.
- Useful in most type of concrete above and below ground subjected to water pressure and aggressive environment.
- Reduces concrete permeability value and hence ingress of water is reduced which protects embedded steel against corrosion.
- Bond strengths of concrete to reinforcement to steel are also increased considerably.
- Improves both early and ultimate strength without increasing cement content and without reducing workability. Saves cement (25 – 40%) keeping workability and strength constant.

**TECHNICAL DATA**

Parameters	Test Values	Test Protocol
Form	Liquid	Visual
Colour	Deep Brown	Visual
Specific Gravity	1.22 ± 0.02	IS 9103, BS 5075, ASTM C494
Air Entrainment	Less than 1% over reference mix	IS 9103, BS 5075, ASTM C494
Setting & Hardening	There may be no or mild retarding effect on setting time.	IS 9103, BS 5075, ASTM C494
pH Value	>6	IS 9103, BS 5075, ASTM C494
Chloride Content	Nil	IS 9103, BS 5075, ASTM C494
Compatibility	Can be used with all types of OPC, PPC, PFA, GGBFS, micro silica, metakeolin, including sulphate resistant cement.	IS 9103, BS 5075, ASTM C494

**PACKAGING**

250 Kg drum/barrel packing.

**CONSISTENCY**

**CICO PLAST SUPER-HS K504** is formulated from carefully selected raw materials and is manufactured under control conditions to produce a consistent product.

**STORAGE**

**CICO PLAST SUPER-HS K504** should be stored in a cool dry place in the temperature range from 5°C to 40°C in sealed condition. Keep away from and direct Sun Light.

**SHELF LIFE**

18 months at ambient temperature and standard storage conditions of 15°C to 40°C.

**HANDLING**

**CICO PLAST SUPER-HS K504** is formulated from chemicals, which present no fire or health hazards

**PRECAUTION**

**CICO PLAST SUPER-HS K504** should not be come in contact with bare soft skin and eyes. Wear gloves and safety glass during material handling to avoid direct contact. In case of contact with skin wash it with soap and water.

In case of contact with eyes splashes with plenty of fresh clean water. If irritation persists, seek medical help.

Do not swallow. If swallowed accidentally, seek medical help immediately. Do not induce vomiting.



When the material is stored below 10°C, precipitation may occur. Slightly warm (nearest to 20°C) the material to dissolve the salt and use it.

more. The dosage depends on the cement content and the w/c ratio, aggregates and other additives. Generally 0.4 to 2% by wt. of cement can be used.

### RATE OF ADDITION

With small dosage the increment of slump is

#### Important Note:

All CICO products are sold in the market after strict Quality Control in line of ISO 9001 and guaranteed against any manufacturing defect. Although the basic formulation of Company's products generally remains unchanged, production refinements arising from continuing research and evaluation program may occasionally result in marginal changes in properties. CICO aspires to ensure that any recommendation, advice, test data, specification, method statement and other information given in this product datasheet is accurate and best of company's knowledge. Since, the company (CICO TECHNOLOGIES LTD) has no control over the selection of its product, applicators, application methodology, how and where it is applied, therefore, the company cannot accept any liability directly or indirectly arising from the use of its product. It is important to any customer, user or specifier satisfies him / herself that the product is suitable for the intended purpose including health, safety and environmental aspect. Unless or otherwise agreed in writing, all products of the company are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. All customers, users, specifiers should ensure that they examine the suitability of the product with company's latest product data sheet.

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