

CICO PLAST SUPER-HS

High Range Water Reducing Admixture & Integral Cement Waterproofer for Concrete

CICO PLAST SUPER-HS is a second generation of concrete admixture based on a blend of specially selected organic polymers (SNF), combining the properties of superplasticiser with high degree of slump retention characteristics, high range water reducer and integral cement waterproofer for concrete.

Product Specification:

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

USES

CICO PLAST SUPER-HS can be used to either produce an extremely workable FLOWING CONCRETE without loss of strength or to enable large water reduction to be made for the same workability which results in a dense, water tight concrete with higher ultimate strength.

- General building construction
- Piling, pile cap, bridge decks
- Concrete roads including PQC
- Tunnel lining
- RMC

ADVANTAGES

- Substantial improvements in workability and flow properties without increased water produces self leveling concrete which can be poured into place around congested reinforcement and requires

little (or no) vibration to achieve optimum compaction. The bond strength of concrete to reinforcement steel is considerably increased.

- The internal friction and thixotropy of the mix is reduced to a minimum without the risk of segregation, thus making concrete pumping more efficient.
- Very significant water reduction up to 30% minimizes shrinkage cracking thereby producing close textured impervious concrete with improved durability and surface finish. Suitable for use in most type of concrete above and below ground subjected to water pressure and aggressive atmospheric conditions. Reduces in concrete permeability, protects against water migration and corrosion of embedded steel.
- For a given concrete mix, keeping the cement consumption and workability constant by large reduction in the amount of mixing water, substantial increase in strength can be achieved. Alternatively, for the same concrete mix, by keeping workability and strength constant a definite cement economy ranging from 10 to 30% can be obtained. Obvious advantages for pre-cast concrete production are achieved.

CONSISTENCY

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

TECHNICAL DATA

Parameters	Test Values	Test Protocol
Form	Liquid	Visual
Colour	Deep Brown	Visual
Specific Gravity	1.20 ± 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	0.1 % (w/w)	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

SHELF LIFE

18 months at ambient temperature and standard storage conditions of 5°C to 40°C.

HANDLING

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

PACKAGING

20kg & 250 Kg drum/barrel packing

STORAGE

CICO PLAST SUPER-HS 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.

PRECAUTION

CICO PLAST SUPER-HS 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.

RATE OF ADDITION

With small dosage the increment of slump is 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.

SL.NO.	FUNCTION	DOSAGE
1.	As superplasticisers – for flowing concrete	200 – 1000g per 50 kg cement
2.	As Integral cement waterproofing compound and dense concrete	300g per 50 kg cement
3.	As high range water reducing admixture for high strength concrete	400 – 1000g per 50 kg of cement

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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