

HPC - 5

(Superplasticiser for High Performance Concrete based on Poly-carboxylic Ether)

N : HPC 5 is a super-plastisizing admixture to produce high performance concrete where the highest durability and performance is required.

Application :

- NANO Add mix for Ready Mix Concrete in Higher grades
- Self Compacting Concrete
- High Strength Concrete
- High Performance Concrete
- Pumped concrete

Benefits :

- Excellent dispersion resulting in High workability & superb slump retention.
- Increases early & ultimate strengths
- Increases Flexural strength & E-modulus
- Increases durability & impermeability
- Ideal for use in Self-compacting Concrete

TECHNICAL PROPERTIES:

Appearance	Light Yellow-Brown Liquid
Base material	Modified Poly-carboxylic Ether
Specific Gravity@25°C	1.110 ± 0.020
Chloride content	Maximum 0.2%
pH	6 - 7

Application method :

- Add 80-90% water to the concrete based on Mix Design by weight.
- The correct quantity of **N : HPC 1** should be measured with recommended dispenser and should be added to the concrete with remaining mixing water.
- Allow to mix it for recommended mixing time. The addition of **N : HPC 5** to dry mixes or cement is not recommended.

Dosage :

As a starting point, a dosage range of 0.5kg to 1.kg per 100kg of cementitious materials is recommended. Optimum dosage of **N : HPC 1** should be determined in trial mixes. Please consult NANO ADDMIX Technical staff for further information.

Compatibility :

N : HPC 5 is compatible with all types of cements. If more than one admixture is to be used in concrete, they must be dispensed separately with prior approval received from NANO ADDMIX Technical Services.

N : HPC 5 is suitable for mixes containing : Micro-silica, Pulverised Fly Ash, Ground Granulated Blast Furnace Slag

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Workability :

N : HPC 5 ensures that concrete remains workable in excess of 3 hours at 20°C. Workability loss is dependent on temperature, type of cement. It is strongly recommended that concrete should be properly cured particularly in hot and dry climates.

Mechanism of action:

Conventional Super plasticiser, based on Sulphonated Naphthalene or Melamine Formaldehyde condensates, at the time of mixing getting absorbed onto the surface of cement particles. This absorption takes place at very early stage in the hydration process. The sulphonic groups of the polymer chains increases the negative charges on the surface of the cement particle and the dispersion of the cement occurs by Electrostatic Repulsion.

Effects of Over Doses :

A severe over-dosage of **N : HPC 5** will result in the following:

Retardation of Setting Time

- Increase in workability / segregation
- Slight increase in air entrainment

- The shelf life of the product is 1 year when stored as recommended.

Packing :

N : HPC 5 is available in 230 kg drum and in tanker on demand & availability.

Storage :

N : HPC 5 must be stored at above 5°C temperature. Store under cover, protect it from direct sunlight. Failure to comply with recommended storage condition may result in premature deterioration of the product or packaging

Safety precaution :

N : HPC 5 is a non-toxic and inflammable. When in contact with the skin, it should be washed with cold water.

Disclaimer:

The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests and take trials to ensure suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of the other materials used and on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The Company does not assume any liability or any consequential damage for unsatisfactory results, arising from the use of our products.