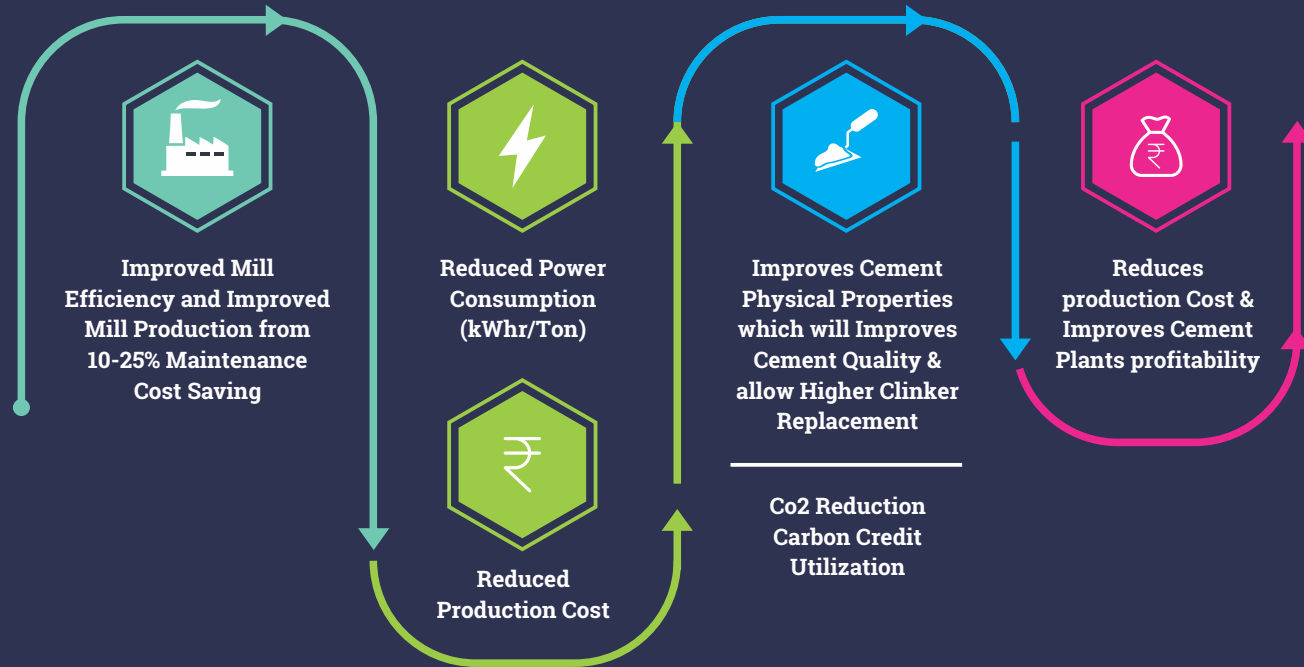


## Grinding Aids & Performance Enhancer:



[www.nutecsol.com](http://www.nutecsol.com)

### OFFICE ADDRESS:

No. 71, Ground Floor, 4th Main ITI Layout,  
Nayandahalli Bangalore -560039.

### Unit-1 Address:

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Antharasanahalli, Tumkur -572106, Karnataka

080 - 2339 4820 | [sales@nutecsol.com](mailto:sales@nutecsol.com)



## CEMENT ADDITIVES



[www.nutecsol.com](http://www.nutecsol.com)

# Nutecsol Products India Pvt. Ltd., a young company with a vision to create an impact in the construction chemical industry with high-tech eco-friendly products.

NuTecSol is an ISO 9001 and ISO 14001 certified company has in its fold a wide range of Construction Chemicals products all of which are Eco friendly and its manufacturing premises is located at Tumkur, Karnataka.

NuTecSol Range of construction additives are the outcome of intense research and efforts of prominent experts in the field with ultimate aim of enhancing the aesthetic look for long period of protection for structures. NuTecSol aim to be a world class organisation with professional ethics and progressive work culture to continuously strive for scaling new heights both in terms of productivity as well as customer satisfaction.



The perfect solution to a customer's problem lies in knowing which material technology works best with specific applications. NuTecSol is reputed for identifying and bringing together all the elements necessary to deliver a robust solution. When formulating products, NuTecSol focuses on the ease and simplicity of application in addition to performance to prevent costly time-consuming mistakes. Its aim is to partner with its customer to ensure that they grow together and create mutual value. NuTecSol brings to the fore its knowledge and experience in providing solutions and products to the construction industries.

## Our other Products:

- **Admixtures**
- **Unika Paints**
- **Waterproofing Systems**
- **Bonding Adhesives**
- **Grouts and Anchors**
- **Surface Treatments**

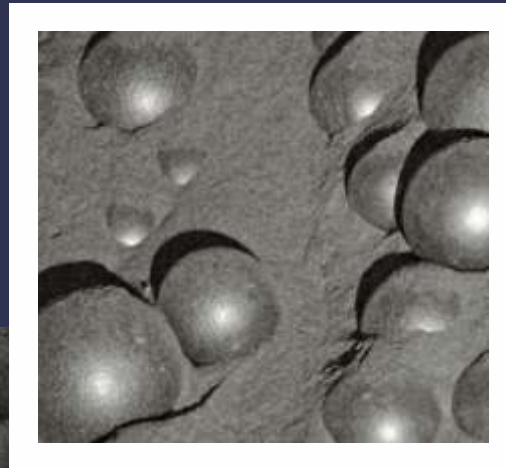


# NuTec CEM

Works as “GRINDING AIDS & PERFORMANCE ENHANCERS” to meet various objectives of cement plants for their comminution process like Cement Mill, Raw Mill and Coal Mills.

## NuTec CEM PRODUCTS

1. Grinding Aids for Cement Mill, Raw Mill and Coal Mill
2. Performance Enhancer for blended cement
3. Special additives for special requirements



## Grinding Aids Actions

# 01

NuTec CEM is an organic compound which works on the principals of Adsorption and it is mostly active in the mill through adhesion on the particle surfaces.

# 02

It generates a very thin film of monomolecular around the particles surface which soften some electrovalence bonds as well as neutralize electrostatic charges on the particle edges.

# 03

Chemical application of NuTec CEM additives act on the calcium ( $\text{Ca}^{++}$ ) and oxygen ( $\text{O}^-$ ) bond. Ion formed by NuTec CEM, neutralizes all electrostatic charges on the cement particles which eliminate “Pack Set” or “Silo Set” and provide higher fluidity of the ground materials.



## Performance Enhancer Actions:

# 01

### Higher early Strength and Faster Setting Time

- Optimization of the particle size distribution
- Acceleration of the hydration of C3A, NuTec Grind accelerates the formation of Ettringite as well as its transformation into monosulphoaluminate to improve cement early strength.
- Reduce Pack Set index (Improve cement dry flowability)
- Ion formed by NuTec Grind neutralized all electrostatic charges on the clinker and cement particles which eliminate coating and provide higher fluidity of the ground materials.

# 02

### Higher late Strength

- Accelerate the hydration of ferrite phase, which leads to the promotion of silicate phases hydration which lead to better late strength enhancement.

## Advantages to Cement manufacturers

- 01** Increased grinding efficiency with resulting increased mill output, higher cement fineness and/or reduced unit power input and grinding costs.
- 02** Increased workability (flow) of cement mortars and concretes.
- 03** Increased cement flowability and reduced pack set (inside the Silo or during the bulk transportation) of cements resulting in lower handling costs and reduced waste.
- 04** Increased early and long-term compressive strengths for production of better quality cements.
- 05** Reduced cost of cement production through reduced unit grinding costs and through replacement of clinker with reactive additions such as pozzolans, blast furnace slag and fly ash or with fillers such as limestone.

## Product Range

### NuTec CEM - 100 Series

High Performance grinding additives, suitable for grinding all Type of cement.

Dosage: **100-500 g/t**

Production increase: ★ ★ ★

Strength: ★ ★ ★

Typical application: **All Type of cement**

Type of Mills: **All Mills**

Co2 Reduction: ★ ★ ★

### NuTec CEM - 200 Series

Grinding and Performance additives, Strength, Production and workability or flow improver.

Dosage: **200-500 g/t**

Production increase: ★ ★

Strength: ★ ★ ★

Workability: ★ ★ ★

Typical application: **OPC & Blended Cement (PPC, PSC, PLC)**

Type of Mills: **All Mills**

Co2 Reduction: ★ ★ ★

### NuTec CEM - 300 Series

Special additives for Special requirement

Dosage: **100-500 g/t**

Production increase: ★ ★ ★

Typical application: **Mineral Grinding and Masonry Cement (Air Entrainment)**

Type of Mills: **All Mills**