

# CEMTEC CORROSION INHIBITOR - S

## CCI-S

### DESCRIPTION

**CEMTEC CORROSION INHIBITOR - S (CCI-S)** is a chloride free, ready to use aqueous solution of Calcium Nitrite exhibiting a neutral concrete setting time. It complies with ASTM specification C 494 requirements for type C admixtures. While having corrosion inhibition properties to the same standard as CCI Corrosion Inhibitor, **CCI-S** will perform without the normal accelerating effect associated with ASTM 494 Type C admixtures.

Construction Material Chemical Industries (CMCI), Saudi Arabia, has formulated a chemical treatment for concrete which provides an effective barrier for chloride induced corrosion on reinforcing steel and concrete structures specifically designed for the GCC Countries environment.

In **CCI-S**, calcium nitrite is an active ingredient which reacts chemically to interrupt chloride induced corrosion. **CCI-S** interacts with the surface of reinforcing steel to form an effective barrier which prevents chlorides in the concrete from attacking the steel. The induced barrier is insoluble and after determining the chloride content, the Structural Engineer can specify the appropriate amount of **CCI-S** which should be added to ensure the structural integrity of concrete.

**CCI-S** is fully compatible with the CEMTEC range of Super Plasticizers, Retarders, Air Entraining Agents and other concrete admixtures. The combined use of **CCI-S** and CEMTEC Super Plasticizers will delay the onset of chloride induced corrosion. All admixtures should be dispensed separately to obtain the desired results.

**CCI-S** is a neutral set corrosion inhibitor specially formulated to minimise the effect on concrete setting times which may initiate slump loss. Due to the various climatic, environmental or job site conditions, which may prevail, an accelerator or a retarder may be added to the concrete mix. Please consult with local representative of CMCI.

The water cement ratio should be adjusted taking into consideration the water available in **CCI-S** in effort to maintain the desired water cement ratio. The water added at the batching plant should be reduced to compensate for the addition of CCI-S. The adjustment factor is approx. 0.85 kg per ltr of **CCI-S**.

**CCI-S** is compatible with all type of portland cements and Pozzolanic cements. There are however significant variations and standards between cements even within the same type, so differences in reaction to **CCI-S** may occur with different cements. In particular this is significant in relation to the effect on setting times, which in turn may affect slump retention.

### CCI-S ADVANTAGES

- Exhibits neutral setting time for the concrete.
- Provides Protection for reinforcing steel.
- Easy to use.
- Eliminates use of expensive Epoxy coatings on reinforcing steel.
- Increases compressive strength.
- For use in prestressed and post-tensioned concrete in vertical and horizontal members.

**Specification:** solid content not less than 30% by weight.

**Specific Gravity** : 1.28 ±0.01

**Minimum Dosage** : 10 Ltr/m<sup>3</sup>

**Predicted chloride Required Addition rate  
Content of CCI-S Solution**

KG/m <sup>3</sup>	L/m <sup>3</sup>
1	2.5
2	5.0
3	7.5
5	12.5
7	17.5
8	20.0
9	23.0
10	25.0
11	28.0
12	30.0
13	33.0
14	35.0
15	38.0

### PACKING

210 ltr drums and 1000 ltr IBC tanks

### STORAGE

CCI-S freezes at approx. 5° C

*“High Quality Construction Chemicals”*

CONSTRUCTION MATERIAL CHEMICAL INDUSTRIES  
P.O. Box 7137, Dammam 31462, Saudi Arabia, Tel: 00966-13-8471450; Fax: 00966-13-8471575  
Email: tech@cmci-sa.com, Web: www.cmci-sa.com

#### QUALITY STATEMENT

CMCI manufacture its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with Quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products. CMCI also offers full technical field support to consultants, Architects, Contractors, applicators and End Users

The Technical Specification information and recommendation given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product. CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.