

VICAMIX-K®

Shrinkage-Compensating Cement Additive

Description

Vicamix K is a powder additive based on Calcium Sulphoaluminate (CSA) cement. When added to Portland cement mixes, a positive expansion occurs through the curing period to compensate further shrinkage after the termination of curing. When using **Vicamix K** shrinkage compensating mixes are produced with enhanced workability, mechanical performance and minimized or eliminated cracks caused by drying shrinkage.

Advantages

- Improved early strength as well as long term strength development.
- Reduces drying shrinkage cracking & curling.
- Reduces control joints.
- Increases abrasion resistance.
- Decreases water permeability.
- Increases concrete durability.

Uses

Cementitious Mixes produced by the addition of **Vicamix K** can be used in, but not limited to, the following applications examples:

- Industrial slabs, concrete containment structures, parking structures, bridge decks, topping slabs, deck pan applications, post-tensioned and chemically prestressed structures, architectural concrete, polished concrete, mass elements, and other cast-in-place concrete applications.
- Flowable grout, concrete or mortar, to fill gaps and/or voids where shrinkage compensation is required.

Dosage

- **5-10% of the Portland cement weight.**
- **This dosage should not be exceeded otherwise extra expansion can occur which could lead to cracking and would be undesirable for many applications.**
- **Actual mix designs vary depending on application, regional Portland cement characteristics, regional aggregate characteristics, supplementary cementitious materials, admixtures, and final performance requirements.**

Application Instructions

Mixing

- Dry mix all the components until homogenization prior to the addition of potable water.
- Mechanical mixing is essential for a rapid and homogeneous mix.

Application

- The general practice rules apply for different applications.

Curing

- For general applications, seven (7) days of wet curing is required. Refer to ACI 223 for additional details.
- Insufficient curing will affect the final shrinkage compensation mechanism.

Precautions

- Protect the **Vicamix K** bags from direct sun rays or any other source of heat before use, this can lead to a very fast setting.

- Avoid working on hot substrates.
- Avoid mixing with hot water.
- **Avoid contact with gypsum or any other sulfates on substrate, mixing water or curing water in plastic state.**

Health and safety

Vicamix K is alkaline when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs, wash thoroughly with clean water. Should eye contact occur, rinse immediately with plenty of clean water and seek medical advice.

Storage & shelf life

Vicamix K should be stored in normal temperature and closed shaded dry area in undamaged original packing. It is recommended to be re-tested after 6 months from the production date.

Technical support

For any technical support, please consult our technical office or representatives.

More information

Please Refer to ACI 223 for additional details.

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Hemts Construction Chemicals Ltd.

Head quarter: 35 ElGazayer St. 11435 Maadi, Cairo, Egypt
Factory: CPC industrial compound, 6th of October, Giza, Egypt
Tel: (+202)27030503 - 27542745 - 25180578 info@hemts.net

www.hemts.net

