



CWC®SMARTCEM C

Polymer Modified Non-Shrink Admixture For Injection Cement Grouting

Description

CWC®SMARTCEM C is specially formulated non-shrink grouting aid. It is a free flowing powder for addition to neat cement mixes. It plasticizes the mix, allowing for substantial reduction in water without affecting the fluidity, thus improving the strength and impermeability of the grout. During the setting period of the grout, it produces controlled expansion to compensate the normal drying shrinkage of cement. This ensures complete filling of voids and prevents formation of porous sections. It also imparts surface active properties and controlled volume increase during reaction; thus even the smallest cracks and pores can be impregnated.

Domains of Application

CWC®SMARTCEM C is used as an admixture for Injection Grouting to effectively waterproof and stop leaks in underground structures, basements, tunnels, lift wells, retaining walls, dams, water reservoirs, pressure ducts and other water retaining structures. It is also recommended for grouting pre-stressed members. machine bases, column bases (Steel and precast concrete) anchor bolts etc. and wherever a non-settling, non-bleeding, expanding grout is required. **CWC®SMARTCEM C** can also be used as an additive to produce flowable Expansion (non shrink) concrete (with smaller sized graded aggregates are preferable) / mortar.

Indicative Characteristics

Free linear Expansion, ASTM C 827	2-4%
Form	Powder
Color	Ashy Yellow
Compatibility	Can be used with all types of Ordinary Portland and blended Cements, including sulphate resistant Cement.
Consistency	CWC®SMARTCEM C is formulated from carefully selected raw material and it is manufactured under control conditions to give a consistent product.
Handling	CWC®SMARTCEM C is formulated from Chemicals which present no fire or health hazards.

Method of Application

Mixing

Use mechanical mortar mixers, preferably of the slow speed (250-350 rpm) paddle mixer Hand mixing rarely achieves the desired result. Allow approx 5 minutes for mixing. Thorough mixing is essential for achieving maximum results. Add cement and **CWC®SMARTCEM C** slowly into recommended amount of clean water in a mixer.

CWC®SMARTCEM C is admixed with neat cement mixes to a suitable consistency and injected under pressure, preferably by a positive displacement pump through nozzles. The surface of the concrete/rock should be properly sealed / patched to prevent the grout from coming out. To get better result **CWC®SMARTCEM C** should be mixed uniformly with dry cement for concrete and mortar.



Dosage

The rate of addition varies from 0.5% - 4% by weight of dry cement. The optimum dosage depends on the nature of the work

Advantages

- Drastically improves the fluidity and flowability of the mix.
- Ensures high early strength and rapid gain of later strength
- Increased flexural and tensile strength.
- Provides additional resistance to dynamic and repetitive loading.
- Compensates cement shrinkage by controlled expansion.
- Withstands thermal movements to provide improved dimensional stability

Shelf Life & Storage

12 months from the date of manufacturing when stored in un-opened, original sealed and dry condition at a temperature range from +5°C to 40°C

Packing

20kg waterproof laminated HDPE bag

Safety

- Wear hand gloves, safety shoes and safety goggles while using and handling the product.
- In case eyes or mouth are affected wash with plenty of clean water and seek medical treatment immediately.

Before use, refer to the Material Safety Data Sheet. The MSDS is available on www.cwcchemical.in