

cemseal[®]

Technical Data Sheet

CEMSEAL ADMIX C100E

(formerly known as CEMSEAL C100E)

CRYSTALLISATION WATERPROOFING ADMIXTURE

DESCRIPTION

CEMSEAL ADMIX C100E is an integral crystallisation waterproofing admixture which consists of Ordinary Portland Cement, treated silica sand and other active proprietary chemicals. Added to the concrete during batching, CEMSEAL ADMIX C100E reacts with moisture in fresh concrete and by-products of concrete hydration to form insoluble crystals in the pores and capillary network, creating a physical barrier to the passage of water.

FEATURES AND BENEFITS

- Seals hairline cracks up to 0.4mm
- Improves the durability of concrete
- Non-toxic, suitable for potable water storage
- Increase productivity, reduce construction time
- Positive and negative hydrostatic pressure resistance
- An integral part of concrete, not subjected to physical damage or delamination

RECOMMENDED USE

- Basements
- Tunnels
- Precast concrete
- Potable water tanks
- Water retaining structures

PRODUCT PROPERTIES

Pack Size	20kg Other sizes available on request
Appearance	Grey powder
Specific Gravity	3.00 - 3.15

TECHNICAL PROPERTIES

Properties	Test Method	Typical Value
Water Penetration	EN 12390-8	≤ 20mm
Chloride Content	EN 480	Not detected
Compressive Strength	EN 12390-3	Unaffected
Slump	EN 12350-2	Unaffected
Coefficient of Permeability	ADM/CE/017	Low
Examination of Hardened Concrete using Scanning Electron Microscopy	ASTM C1723	Abundant crystal formation
Toxicity Test	SS 375	Passed

APPLICATION

Dosage:

0.8 - 1.2% by weight of cementitious. The minimum cementitious content is 350kg/m³

Water Cement Ratio:

0.42 to 0.45

Ready Mix Plant - Central Mixer

CEMSEAL ADMIX C100E is added in powder form with the other concrete mix components. Mix according to standard batching practice to ensure thorough dispersion, resulting in a homogeneous concrete mix.

Ready Mix Plant - Concrete Mixer Truck

CEMSEAL ADMIX C100E is added in powder form into the concrete mixer truck's drum. Immediately drive the truck under the batching plant and add the remaining concrete mix according to standard batching practice. Utilise high-speed mixing for 2 to 3 minutes to ensure thorough dispersion, resulting in a homogeneous concrete mix.

Precast Batch Plant

CEMSEAL ADMIX C100E is added to the aggregates and mixed for 2 to 3 minutes, followed by the addition of cement and water. The total concrete mix should be blended according to standard batching practice.

COMPATIBILITY

CEMSEAL ADMIX C100E is compatible with Ordinary Portland Cement (OPC) and Portland Blastfurnace Cement (PBFC).

STORAGE AND SHELF LIFE

Storage

CEMSEAL ADMIX C100E should be stored in original manufacturer's packaging and position, at room temperature between 5°C and 25°C in a shaded, cool, dry and away from direct sun and rain exposure. It shall also be stored at least 2 metres away from direct heat and water sources.

Shelf Life

Expected 12 months shelf life with the above-mentioned storage conditions.

HEALTH AND SAFETY

User must refer to Safety Data Sheet before usage of this product.

BASIS OF TECHNICAL DATA

All technical data provided in this Technical Data Sheet are based on laboratory tests. Actual performance may vary due to factors beyond our control.

Disclaimer:

The information and any recommendations relating to the application and end-use of all CEMSEAL products are provided in good faith based on CEMSEAL's knowledge and experience of the products. In applications, the differences in materials, and variances of substrates and actual site conditions can vary such that no warranty in respect of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be taken as inferred either from this information, or from any written recommendations, or from any other advice offered by CEMSEAL. The proprietary rights of third parties must be observed. All orders are accepted subject to our sale terms and conditions. All users should always refer to the most recent and up to date issue of the Technical Data Sheet for the product concerned, which is available on request. It is recommended that products should always be properly stored, handled and applied under tested and recommended conditions.

For More Information:

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