

TECHNICAL DATA GUIDE- CRYSTALLINE WATERPROOFING COMPOUND

CBS-MAXSEAL

INTEGRAL CRYSTALLINE WATERPROOFING ADMIXTURE

DESCRIPTION

CBS –MAXSEAL is an integral waterproofing admixture in dry free-flowing powder form containing cement, silica-based materials and other carefully chosen active ingredients. It is used as an additive in concrete at the time of mixing to produce impervious concrete.

A catalytic reaction occurs with the by-products of cement hydration in presence of moisture, forming sharp insoluble crystalline gels throughout the cracks, capillary pores, capillary tracts of concrete.

This reaction also helps in self-sealing minor cracks and results in preventing water ingress into concrete thereby reducing the risk of corrosion of reinforcing steel, Sulphate attack and offsets deterioration due to harsh environmental conditions, wetting and drying cycles.

TYPICAL APPLICATIONS

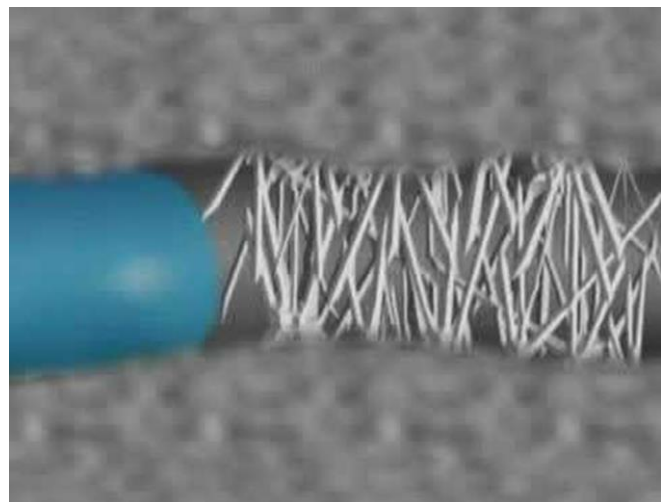
- Subgrade structures such as raft slabs, retaining walls, Lift pits, underground vaults, PQC pavements.
- Water retaining structures such as swimming pools, aquatic structures, fountains, sewage and water treatment plants, reservoirs, UG Sump, OH tanks etc.,
- Tunnels, subways, dams, elevated roadways, bridge decks, aqueducts, underpass, etc.,
- Shotcrete applications.

FEATURES AND BENEFITS

- Highly resistant to aggressive and chemical environments.
- Self-heals the cracks below 0.75mm width.
- Provides permanent active waterproofing & continual protection from water ingress.
- Increases durability of concrete by reducing permeability of concrete.
- Resists positive and negative hydrostatic pressure
- More effective on shotcrete applications.
- Chloride free, non-toxic can be used for potable grade water tanks.

PERFORMANCE DATA /SPEC CLAUSE

Appearance	Grey colored free flowing powder with active chemical ingredients.
Chloride content	<0.10%
Particle Size	50-190 μ
Bulk Density	1400 Kgs/Cum
Water Permeability	Water penetration not more than 40% of control mix
Air Entrainment	Less than 2 % in concrete mixes
Compressive strength	Increased Compressive strength around 3.5% @7 days, 4.5% @ 28 days, 5.2% @ 56 days over control
Setting time	No significant change – Meets IS 1199/ 9103 requirements
Rapid Chloride ion penetration - ASTM C1202	Not more than 50% of control mix
Drying Shrinkage IS 2185	Min 45% reduction vs control concrete
Free Thaw resistance	Min 70% reduction vs control concrete





DOSAGE & DIRECTIONS FOR USE

The optimum dosage for CBS-MAXSEAL is 0.80 to 1.00 % by weight of cementitious materials. Slight delay in setting time of concrete may be observed in cold climate. This delay depends on the choice of cement & binders, mix-design, temperature of concrete and the prevailing climatic conditions

Consult with CBS technical service team for more details.

The sequence of procedures for addition will vary according to the type of batch plant operation and equipment used.

Addition at batching plant:

CBS-MAXSEAL is added to the concrete at the time of batching. CBS-MAXSEAL is added along with fine & coarse aggregates, mixed thoroughly before adding cement and water.

Addition at site:

Do not add dry admix powder directly to wet mixed concrete as this could cause lumping and thorough dispersion may not occur. Mix CBS-MAXSEAL with water in 1:1 ratio by weight to a lump free slurry consistency and pour into the plant mixer/drum of the transit mixer and mix thoroughly for at least 5 minutes. Please ensure that the water used to make slurry must be deducted from the total water to maintain the water cement ratio.

PACKING

CBS-MAXSEAL is packed in 30Kgs bags HDPE-moisture proof bag.

STORAGE & SHELF LIFE

CBS-MAXSEAL should be stored in a shaded cool and dry place. Shelf life of CBS-MAXSEAL is 12months from the date of manufacture if kept in unopened, undamaged, original sealed packaging and kept within the range of 10°C to 50°C.

Failure to comply with recommended storage may deteriorate the product or packing.

HEALTH & SAFETY

In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting. Suitable protective gloves and goggles should be worn. For further information refer to the material safety data sheet.

DISCLAIMER

The information given is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification. Since the conditions of use are beyond our control we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale including those limiting warranties and remedies which apply to all goods supplied by us. No statement, recommendation or suggestion is intended for any use which would violate or infringe statutory obligations or any rights belonging to a third party.

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