

Struseal® C512

Integral Waterproofing Admixture Based on Crystalline Formation to Produce Watertight Concrete

Uses

Struseal C512 is an integral waterproofing admixture to produce water tight concrete. The active chemical in Struseal C512 react with moisture available in concrete to produce non soluble crystalline formation throughout the pores of capillary tracks thus making concrete permanently sealed against water penetration from any direction.

Struseal C512 is developed to use in:

- All types of concrete foundation below ground
- Water reservoir
- Tunnel Concreting
- Retaining walls and subways
- Deck slab, Bridges, plinth and intermediate slab used for car parking
- Water tank and Swimming pools
- Precast unit

Advantages

- Easy to use, require only mixing with concrete.
- Integral waterproofing system.
- Crack filling property with time up to 0.4mm width
- Exhibits good resistance to hydrostatic water pressure both surface.
- Compatible with our full range of water reducing admixture.
- More effective due to formation of crystalline in tiny capillaries.
- Reduce Shrinkage and Creep
- Increase Durability
- Permeability Reducing Admixture as per ACI 212-36-10.

Standard Compliance

Struseal C512 has been tested in accordance with various standards such as IS 516 Part-2 Sec-1, IS 3085-1965 (Reaffirmed 2021), ASTM C 1260, ASTM C 1202-12, AASHTO T 277, ASTM C 1556-04, 1152/C, 1152M-04, DIN 1048, B S E N 12390 – part 8.

Description

Struseal C512 is a powder form with perfect blend of Portland cement with other ingredients. Crystalline chemicals react with water in concrete to form crystals structure in the tiny capillaries. These insoluble crystals structure that clogs the pores. This process continues until all the chemicals have reacted.

Typical dosage

Recommended dosage of Struseal C512 is 0.6% to 1% by weight of total cementitious content. The optimum dosage of optimum to meet specific requirement should always be determined by conducting laboratory and batch trials.

Properties

Appearance	Gray powder
Bulk density	1400 Kg/m³
Workability Retention	To be adjusted using water reducing and retarding admixture as required.
Compatible with cement	Can be used with all cements including pozzolonic cements.
Permeability to water	Has very low permeability compared to control concrete.
Setting time	Confirm to IS 2645-2003 for initial and final.

Instructions for use

Compatibility:

Struseal C512 is compatible with our water reducing admixture when used in the same concrete mix, but should be added to the mix separately. The resultant properties of mixes containing more than one admixture should be assessed by the trial mix procedure recommended on this data sheet. Struseal C512 is suitable for use with all types of Portland cements, SRC cements and cement replacement materials such as PFA, GGBFS and microsilica.

Dispensing:

The optimized quantity of Struseal C512 must be added directly into the wet concrete at the time of mixing. For Ready Mix Plants, Struseal C512 can be added at site and mixed to ensure uniform distribution throughout concrete mix. In order to obtain uniform distribution, each kg of Struseal C512 must be mixed with one litre of water to form thin slurry form. Then Struseal C512 slurry shall be dispensed into transit mixer and mixed well before pumping or placing. Suggest not adding Struseal C512 powder directly into concrete. Make sure that water used for preparing slurry must be deducted from concrete total water to ensure designed water cement ratio. Consult with Strumix technical department for additional information.

Curing:

As with all structural concrete and sand : cement mixes, good curing practice should be maintained, particularly in situations where an overdose has occurred. Water spray, wet Hessian or a Strucure WS spray applied curing membrane should be used.

Packaging

Struseal C512 is available in 20 kg bags.

Storage

Struseal C512 has a minimum shelf life of 6 months provided the temperature is kept within range of 5 °C and 40 °C.

Precautions**Health and safety:**

Struseal C512 is alkaline and should not come into contact with skin and eyes. Avoid inhalation of dust during mixing. Gloves, goggles and dust mask should be worn. If contact with skin occurs, wash with water. Splashes to eyes should be washed immediately with plenty of clean water and medical advice sought.

Fire:

Struseal C512 is non-flammable.

