

Expanplast* WP500

State-of-the-art, liquid crystalline & hydrophobic waterproofing admixture for concrete

Uses

Expanplast* WP500 will drastically reduce water absorption in any type of concrete with a dual effect of crystallization and hydrophobic properties, the product is suitable for all types of concrete structures including precast concrete, especially below-ground structures, reservoirs, underground and overhead water tanks, underpass, concrete structures in marine areas, piles, manholes, wastewater treatment plants, desalination plants, etc.

Advantages

- Provides integral protection to concrete with dual action, Phase 1 & 2.

Phase 1 reacts with free lime in concrete and produces insoluble crystals, blocks pores/capillaries, and cracks.

Phase 2 reacts with products of the cement hydration process to produce a hydrophobic material, which repels external water, and reduces water absorption of concrete.

- Produce watertight and low-permeability concrete.
- Provides integral protection even if surface damage occurs, unlike applied surface film or coating.
- Fully compatible with all types of concrete admixtures.
- Does not affect or reduce concrete workability.
- Can be mixed at batching plants/mixer machines or directly in transit mixers at the construction sites.
- Minimizes the risk of segregation and bleeding.
- Improves the durability of concrete.
- Does not affect on strength of concrete.
- Chloride-free, safe for use in pre-stressed and reinforced concrete.

Description

Expanplast* WP500 is a chloride-free waterproofing admixture for concrete based on specially selected and blended organic materials. It is supplied as a light brown solution which instantly disperses in water.

Expanplast* WP500 disperses the fine particles in the concrete mix and starts the action in different phases.

Dosage

The optimum dosage of Expanplast* WP500 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. The normal dosage range is between 0.25 to 0.75% by weight of cementitious material.

Use at other dosages

Dosages outside the normal range quoted above can be used to meet particular mix requirements. Contact Fospak for advice in these cases.

Properties

Appearance	:	Light yellowish liquid
Specific gravity	:	1.17 – 1.20 @ 20°C
Water soluble chloride:		NIL to BS 5075

Technical support

Fospak provides a technical advisory service for on-site assistance and advice on admixture selection, evaluation trials, and dispensing equipment.

Instructions for use

Compatibility

Expanplast* WP500 is compatible with other Fospak admixtures used in the same concrete mix. All admixtures should be added to the concrete separately and must not be premixed together before addition. The performance of concrete containing more than one admixture should be assessed by trial mixes.

Expanplast* WP500 is suitable for use with all types of Portland cement and cement replacement materials such as PFA, GGBFS, SRC, and microsilica.

The use of a combination of admixtures in the same concrete mix and or cement replacements may alter the setting time. Trials should always be conducted to determine such setting times.

Dispensing

The correct quantity of Expanplast* WP500 should be measured using a recommended dispenser. The admixture should then be added to the concrete with the mixing water to obtain the best results.

Expanplast* WP500 can be added directly into a concrete ready-mix truck containing wet concrete, pour a measured quantity of admixture into a mixing drum, and mix for 5 minutes before placing, Contact Fospak for advice regarding suitable equipment and its installation.

Estimating - packaging

Expanplast* WP500 is available in 250 Kg. drums, 1,200 Kg. IBC, and bulk supply. For larger users, storage tanks can be supplied.

Storage

Expanplast* WP500 has a minimum shelf life of 12 months provided the temperature is kept within the range of 2°C to 50°C. Should the temperature of the product fall outside this range then contact Fospak for advice.

Freezing point: Approximately -3°C

Precautions

Health and safety

Expanplast* WP500 does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes.

Suitable protective gloves and goggles should be worn.

Splashes on the skin should be removed with water. 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.

For further information consult the Material Safety Data Sheet available for this product.

Fire

Expanplast* WP500 is water based and non-flammable.

Cleaning and disposal

Spillages of Expanplast* WP500 should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water.

The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

* Denotes the trademark registered

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