

## PRODUCT INFORMATION BULLETIN

### DESCRIPTION

**AD-TEK WP-D** is a unique chemical treatment for waterproofing and reducing dampness of concrete. This concrete admixture is specially designed for dual action by:

- forming catalytic cementitious crystalline growth within the concrete pores and capillaries, making hydraulic pressure waterproof concrete
- forming a hydrophobic film on pores, capillaries and new formations in concrete – decreasing capillary suction, resulting in reduction of dampness and water absorption of concrete.

This dual action of **AD-TEK WP-D** provides a dry (dampness free) internal surface of the concrete constructions which are under high permanent hydraulic pressure, and also prevents (in these conditions) the ingress of potentially deleterious soluble materials (chlorides, sulphates etc.), resulting in concrete with enhanced durability.

**AD-TEK WP-D** is a chloride free admixture supplied in a fine powder form. It does not contain any chemicals that might cause undesirable significant side effects when used in conjunction with other typically used concrete admixtures.

**AD-TEK WP-D** is classified by AS 1478.1-2000 as a Permeability-Reducing Admixture.

### USES

- Water retaining structures
- Basements
- Water tanks
- Reservoirs
- Tunnels and mining underground structures
- Deep-water marine constructions
- Waste water treatment and desalination plants
- Corrosion resistant floors, columns etc.

### BENEFITS

- Maximizes concrete waterproofing
- Reduces concrete dampness and water absorption
- Significantly reduces the permeability of water soluble salts (chlorides, sulphates etc.), even in a low dosage rate
- Reduces chloride diffusion and could be a cost-effective replacement for Silica Fume used for this purpose
- Decreases shrinkage and cracking
- Does not affect water vapour permeability
- Improves abrasion resistance of surface
- Is cost effective

## RATE OF USE

For waterproofing concrete, the recommended **AD-TEK WP-D** addition rate is 0.8-1.2% by weight of cement. At the dosage higher than 0.8% a slight set retardation may take place.

## APPLICATION

1. **AD-TEK WP-D** should be added in a paper bag in a slowly rotating concrete mixer prior to charging concrete aggregates. This technique minimise some small material loss which may occur with the dusting during the first seconds of initial mixing.
2. The ingredients in **AD-TEK WP-D** are not toxic; however, inhalation is not recommended.
3. Concrete modified by **AD-TEK WP-D** does not require a special technique of curing if it is not specified for structure type.

**Note:** The minimum cementitious content for concrete with **AD-TEK WP-D** is 320 kg per cubic metre. A maximum recommended water:cementitious ratio is 0.45. Under normal circumstances a water:cementitious ratio less than 0.42 is ideal.

## PACKAGING, SHELF LIFE and STORAGE

**AD-TEK WP-D** is available in 10 kg plastic pails and in bulk on request.

**AD-TEK WP-D** has a shelf life of 12 months if kept in a dry store in sealed plastic pails. It should not be subjected to excessive pressure during storage in hot weather because of the risk of caking.

## SAFETY INFORMATION

Detailed safety information is contained in each Material Safety Data Sheet, which can be obtained from our sales offices.

Disclaimer: Any advice, recommendation, information, assistance or service provided by application is in good faith and is believed by AD-TEK PTY LTD to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by AD-TEK PTY LTD is provided without liability.