

## Integral Crystalline Waterproofing Admixture

Integral crystalline waterproofing admixture is specifically formulated to interact with concrete capillary pore structures to provide a waterproofing system that is a permanent part of the concrete matrix. It lowers water penetration by reducing permeability of the concrete by 50-90%, even under extreme hydrostatic pressure. This admixture can be used in above and below-grade applications. Active chemicals combine with the free lime and moisture present in the capillary tracts and pores, to form insoluble crystalline complexes. These crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress, even under pressure. The concrete will still allow the passage of water vapour through the structure, i.e. the concrete will still be able to "breathe".

## **Advantages**

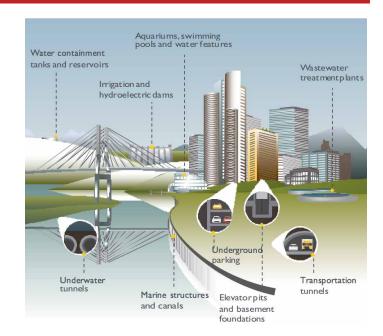
- Self-seals static hairline cracks up to 0.4mm
- · Reduces shrinkage and cracking
- · Resists freeze-thaw
- · Protects reinforcing steel
- Environmentally-friendly Non-toxic
- Reduces or eliminates water penetration
- Resists extreme hydrostatic pressure
- Highly resistant to abrasions and chemicals
- · No VOC's
- · Easy to use powdered material
- Permanent

## **How it Works**

When added to concrete, the crystalline chemically reacts with water and un-hydrated cement particles to form insoluble needle-shaped crystals that fill capillary pores and micro-cracks in the concrete and block the



pathways for water and waterborne contaminants. Any moisture introduced over the lifespan of the concrete will initiate crystallization, ensuring permanent waterproofing protection.



## **Applications**

- · Waste treatment facilities
- · Foundations and basements
- Water containment structures Marine structures,
  Dams and water reservoirs, Swimming pools
- Tunnels and subways
- Manholes
- Underground vaults
- · Parking structures
- Elevator shafts