



A crystal waterproofing admixture for integral waterproofing

Vlakfontein reservoir

Chryso®CWA 10

Durable, water tight concrete

Chryso®CWA 10 is a crystalline waterproofing admixture in a dry powder form that is added to the concrete mix at the time of batching. Active ingredients of Chryso®CWA 10 react with moisture to form crystals deep within the pores and capillary tract of the concrete structure. Chryso®CWA 10 can transform an entire concrete structure into an impermeable water barrier with lasting integral waterproofing properties.

Used to waterproof both the interior and exterior of building, Chryso®CWA 10 prevents concrete decay and protects against moisture transmission, chemical attack and corrosion of reinforcing steel.

Advantages of using Chryso®CWA 10

- Chryso®CWA 10 reduces the permeability of concrete.
- When added to concrete, Chryso®CWA 10 creates a reaction in the presence of moisture to cause long, narrow crystals that fill and plug the pores, capillaries and hairline cracks (up to 0.4 mm) of the concrete mass, becoming an integral part of the concrete matrix. These crystals prevent water penetration through concrete and create a resistance to extreme hydrostatic pressure from both positive and negative sides.

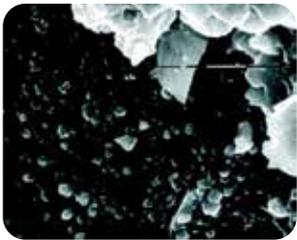
In addition to water, Chryso®CWA 10 protects concrete against chemicals, chlorides, sea water and corrosive groundwater. Thus concrete and reinforcing steel is protected against carbonation, alkali-aggregates reaction and corrosion.

- ✓ Durable, water tight concrete.
- ✓ Easy to use - concrete with a 'delivered waterproofing' attributes.
- ✓ Product that can be used in variety of concrete structures.
- ✓ Self-healing crack up to 0.4 mm in width.

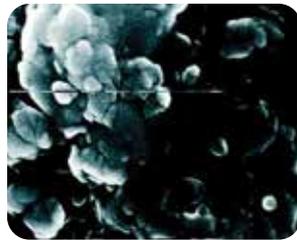
Easy to use - concrete with a 'delivered waterproofing' attribute

- Chryso®CWA 10 is mixed with concrete at the batching phase, and waterproofs concrete from the very moment that it is poured. It offers a long term solution that reduces construction time and provides cost savings.
- The crystalline formations are within the concrete and are not exposed at the surface, it therefore cannot be punctured, torn, peeled or worn away. There is no risk of the system debonding. Waterproofing and chemical resistances properties remain intact even if the surface is damaged.
- Chryso®CWA 10 neither initiates nor promotes the corrosion of reinforcing or pre-stressing steel embedded in concrete. Since it is added to the concrete at the time of batching, it is not subject to climatic restraints, which allows for flexibility with concrete scheduling.
- The product is compatible with Portland cements and most Chryso admixtures and does not adversely affect, the slump, strength, air entrainment or workability of concrete.





Substrate with **Chryso®CWA 10**



Substrate without **Chryso®CWA 10**

Self-healing cracks up to 0.4 mm in width

As long as moisture is present, crystals continue to grow in the concrete. In the absence of moisture, Chryso®CWA 10 will lie dormant but will reactivate again the moment it comes into contact with moisture (such as new cracks). This ability to reactivate in the presence of moisture gives Chryso®CWA 10 the ability to 'self heal'. When cracks develop and moisture enters through these cracks, new crystals will form and grow; blocking and filling the cracks.

Chryso®CWA 10 does not affect the:



Slump of concrete



Strength of the concrete



Workability of the concrete



Design mix of the concrete

Used in a variety of concrete structures

Chryso®CWA 10 can be used anywhere where concrete is exposed to wet, harsh and aggressive environments.

- Aquariums
- Basements
- Bridges
- Carparks
- Dams
- Facades
- Floor slabs
- Foundations
- Lift pits
- Marine structures
- Mortars
- Precast concrete
- Retaining walls
- Roof tops
- Shotcrete
- Swimming pools
- Tunnels
- Underground construction
- Underground vaults
- Water retaining structures
- Water treatment infrastructure

Project reference:



Themba Water Works
Kudube



Vlakfontein Reservoir
Benoni

Chryso®CWA 10

A crystal waterproofing admixture for intergral waterproofing.



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