

Description:

Guard Mix Crystal Pro (Crystalline Waterproofing Admixture) is a special waterproofing cementitious admixture that reacts with the free moisture in the concrete to form crystalline structures within the pores and capillary tracts of the concrete. It is an integral waterproofing system that gives a strong and long-lasting protection from environmental condition, which is ideal for both interior and exterior below grade concrete structures. Guard Mix Crystal Pro renders the concrete structure watertight against high hydrostatic water penetration from any direction in deep underground structures. It is ready to be added into ready mix concrete.



Advantages:

- Fully watertight performance within the concrete.
- Active system to re-seal new cracks in concrete.
- Long-lasting integral waterproofing system.
- Resists high hydrostatic pressure.
- Cost effective and process friendly.
- Protects concrete from chemicals & chloride ingress.
- Saves construction time and easy to install.
- Non-toxic.
- Does not affect the performance of the concrete.

Uses:

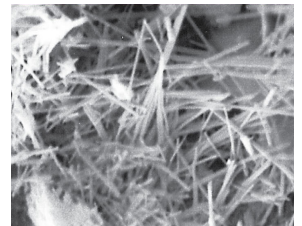
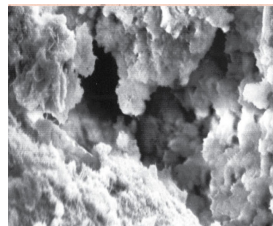
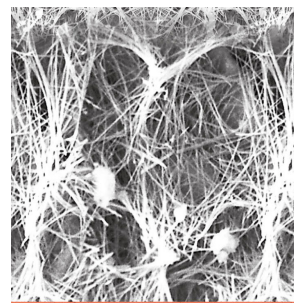
- Deep Basements & Water Retaining Structures
- Sewage Treatment Plants
- Foundations
- Tunnels and subway systems
- Underground structures
- Dams
- Pre-cast Concrete
- Swimming pools and reservoirs

Crystal Growth of admixture within concrete

Normal Concrete



Treated Concrete



Microscopic View of Concrete

Dosage:

Recommended dosage is between 0.8% - 1.0% by the weight of cement.

Guard Mix Crystal Pro is to be added to the concrete during the concrete batching either at the concrete ready mix plant or at site. Guard Mix Crystal Pro added directly into the mixing drum with water (e.g. 20kg of powder mixed with 10.6 l of water) and batch in accordance with good practice standards of concreting works. Trial Mix to be done where required to check the performance of the treated concrete design mixes before actual casting starts at site.

Performance:

Characteristics	Value	Test Method
Water Permeability	<20mm	DIN 1048
Toxicity	Non-toxic	ASTM D412
Cholride Content	<0.2%	EN 480-10

Concrete setting time is subject to the chemical and physical ratio of the mix in conjunction with site conditions and temperature.

The mix design and dosage should be tailored in conjunction with the Guard Mix Crystal Pro admixture recommendations.

Precaution:

For a homogeneous mix of Guard Mix Crystal Pro with the concrete mix, the dosing and mixing of the product should be consistent and supervised by trained supervisor at site or at ready mix plant. Please check with supplier for concreting in cold weather conditions.

Packaging:

20 kg bag / pail.

Shelf Life:

Shelf life of up to 12 months from the date of manufacture, when stored in a cool and dry place, free from moisture contact.