



CoralGel W860

Penetrative Crystallization Sub-Surface Membrane

滲透式三合土微晶防水內塗膜

1.0 Description

CoralGel W860 is a clear sealing and waterproofing subsurface membrane which is solvent free, non-toxic, odourless and user friendly. It is a spray applied colloidal liquid that penetrates the concrete's surface and reacts with the cement paste matrix to form an insoluble gel sealing pores, capillaries and cracks creating a below surface barrier against water and water borne salts ingress. As long as water is present CoralGel W860 remains active and will seal hairline cracks both present and future. CoralGel W860 allows the passage of water vapour from the inside of the structure (the concrete breathes) whilst waterproofing/sealing the surface against sea water, aggressive ground waters, waste water and certain chemical solutions.

2.0 Technical Data

Appearance:	Transparent
Specific Gravity:	Approx. 1.12
Explosion Hazard:	None
Toxicity :	Non Toxic
Paintability:	Excellent
Clean Up:	Water
Spillage:	Dilute/ Flush with water
Water Permeability test	0.25
Conforms to :	Water Permeability Test ASTM E514 ISAT BS1881 Part 5 1970 BS 6920 Contact with Potable Water

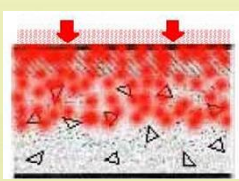
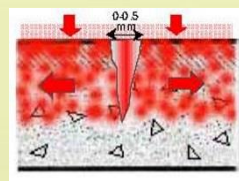
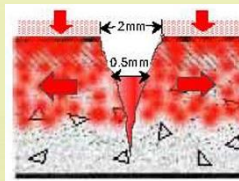
3.0 Typical Application

CoralGel W860 can be used to protect various concrete structures including marine and coastal structures, water Storage tanks, highways, runways, roofs, decks, bridges, cut & cover tunnels, silos, car parks, swimming pools, precast panels, pipes, etc. CoralGel W860 is a completely inorganic water-soluble compound. Unlike solvent-based, membrane forming sealers, CoralGel W860 is environmentally friendly. Since CoralGel W860 penetrates into the concrete, it won't scratch, peel or damage.

Advantages:

- (a) Penetrates concrete up to 35mm, depending on porosity.
- (b) Reduces porosity & permeability
- (c) 100% Trafficable. Slip resistance improved
- (d) Prevents concrete cancer/corrosion
- (e) Reduces Chloride & sulphate penetration by up to 90%
- (f) Improves concrete durability.
- (g) Cannot be damaged, no debond as subsurface membrane
- (h) Fast tracks projects
- (i) Non-toxic, odourless, safe for potable water tanks
- (j) Remains active for life of concrete.
- (k) No protection boards required when backfilling
- (l) Withstands thermal stresses
- (m) Increases useful life of structure
- (n) Increases concrete's hardness.
- (o) Can use with concrete containing PFA, GBFS, or Silica fume
- (p) Provides additional resistance to dilute acid & alkali attack.
- (q) Very easy to apply and cannot be damage during construction.
- (r) Overlays of asphalt do not delaminate Ballast will not damage system.
- (s) Hairline cracks that may develop reseal on contact with water (self healing).
- (t) UV resistant no topping or protection required. Heat reflective membranes may be applied over the top.

How CoralGel W860 Seals Concrete & Cracks (Not to Scale)

 <p>CoralGel W860 penetrates up to 35 mm. into concrete</p>	 <p>0-0.5 mm. crack Stresses develop & cause crack. Crack sealed by CoralGel</p>	 <p>Cracks > 0.5mm. The surrounding area of the cracks mouth is sealed. As the crack narrows it is sealed by CoralGel W860. The crack mouth may be sealed via a combination of calcium acetate & CoralGel W860.</p>
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4.0 Application Details

Surface Preparation

- It is desirable to apply CoralGel W860 at least 2 weeks after pouring concrete, 4 weeks is recommended. It may be applied at any later time. It is especially effective on old concrete.
- CoralGel W860 may be applied to concrete immediately after forms are stripped acting as a curing compound and sealing material. Performance is not as effective as when applied after 2 weeks. A second treatment is recommended 28 days later.
- CoralGel W860 may be applied to concrete treated with other compounds providing, these are removed properly, however, oils or paints may prevent penetration.
- Existing cracks up to 2 mm may be sealed by the use of calcium acetate and CoralGel W860 flooded on the crack. Before any concrete is treated the area must be thoroughly clean. The surface should be first swept with a broom to remove loose dirt. Then wet and scrub with soap or cleaning compound wash off ensure clean. Allow concrete to dry thoroughly for at least 24 hours depending on humidity before applying CoralGel W860.

Application

- CoralGel W860 can be applied by spray, brush and roller applications. A back pack spray will achieve 100-150 m² per hour. Eye protection should be used when spraying.
- CoralGel W860 should be flooded onto the concrete surface. If applied by brush or roller the product must be flooded on first. For vertical surfaces spray equipment is only appropriate.
- Agitate material in drum before application. Apply only to concrete which is dry to touch (no damp patches). If it rains before CoralGel W860 has dried reapplication is required.
- Sealing of joints should be carried out before application. Apply with low pressure in low wind conditions and allow to dry for 2-8 hours before flooding with water. Re-spray water/flood with water on the second and third day. In below ground backfilled concrete surface application ensure concrete surfaces are dry before application.
- CoralGel W860 should not be applied at temperatures below 5°C (in high temperatures apply in the morning or late afternoon) if it is about to rain or in high wind conditions. Cracks must be located & flooded with material at one litre per 3-4 linear metres.
- Pond testing will determine if leaks are apparent and should be continued for at least 12 hours. Retreat the area if leaks are found.
- Equipment - Use simple hand spraying knapsack for small areas or motorized sprayers for large areas. A simple knapsack spray can achieve 100-150 m². per hour.

5.0 Technical Advisory Notes and Limitations

CoralGel W860 should not come into contact with glass. Paint in general will not be affected by CoralGel W860, however, if CoralGel W860 comes into contact with paintwork tiles or other material may come into contact with CoralGel W860 consult Master Proofer's technical department.

CoralGel W860 is not designed to be highly resistant to strong acid or alkali attack, it is not a repellent surface coating. The ability of CoralGel W860 to seal concrete does not include leaks due to structures will generally take 3 days to achieve a seal, however, the seal may take longer.

If other waterproofing additives have been used in the concrete or mortar consult Master Proofer. If curing compounds are used, they should be degradable and removable. The concrete or mortar surface to receive CoralGel W860 must be clean and free of all oils and grease. Do not use CoralGel W860 in areas where strong acids or alkalis are anticipated. CoralGel W860 should not be used on the negative side of structures which are continuously damp. Consult with Master Proofer if to be used with pigmented concrete. Roof details e.g. Construction joints, penetrations, fixtures, expansion joints etc. must be adequately sealed. Contact Master Proofer for details.

The surface treatment of the concrete by power floating or vacuum dewatering can make the surface of the concrete very dense and impermeable. After such treatment it is advisable to test a small area of concrete prior to the application of CoralGel W860 to ensure that impregnation occurs and that the surface is not made glassy or white.

Consult Master Proofer before application in cases of high hydrostatic pressure.

6.0 Coverage

5m² / Litre applied by spray (Vary from surface condition).

7.0 Health and Safety

CoralGel W860 If swallowed increase liquid intake for 24 hours. Consult a doctor. Eye contact should be avoided by the use of eye protection if contact is made flush with large amounts of water continue for several hours. Where in contact with skin remove with water. Avoid direct contact with eyes at all times. In enclosed environment use breathing apparatus.

8.0 Packaging

25L/Drum