



CORAL W888

Cementitious Waterproofing Coating (Crystallization)

水泥基微晶防水塗層

1.0 Description

CORAL W888 is a kind of “ready-for-use” cementitious coating specializing for waterproofing foundations wall, vertical / horizontal; interior and exterior surfaces. It composes of very pure silicones washed sand and appropriate admixtures by which a real impervious barrier is formed to resist impact and aging. A crystallization layer is formed on the contact surface between CORAL W888 and Concrete which tightly bond up both sides of surface, it then allow W888 coating a superior property in resisting back-pressure caused by water ingression.

2.0 Technical Data

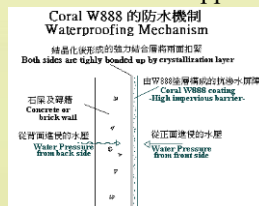
		Remark / Standard
Suitability for use (Human Consumption)	Suitable	Complied BS6920 pt1 clause 8
Density of the Powder	1.3	-
State of Mortar	Creamy Thixotropy	-
Color	White	-
Application Temperature	5°C to 40°C	-
Mixing Ratio on CORAL W888: Water	25kg (W888): 6.5 Liter (water)	HKHA/MTS (2002/2004 Spec Part D)
Tooling Time @ 23°C 60% RH	30 - 45 mins (Standing System) 15 mins (Emergency System)	-
Initial setting @ 23°C 60% RH	60 mins (Standing System) 20 mins (Emergency System)	-
Foot Traffic @ 23°C 60% RH	120 mins (Standing System) 40 mins (Emergency System)	Vary in according to addition of LABOND Curing Enhancer C118 and site conditions
Receiving onward cement work @ 23°C 60% RH	120 mins (Standing System) 40 mins (Emergency System)	Ditto
Compressive strength		
- 7 days	25 Mpa	HKHA/MTS 02/04 Specification Part D clause 2.1.1
- 28 days	35 Mpa	
Bonding Strength to Concrete @ 28 days	>2 Mpa	HKHA/MTS(2002/2004) Specification Part D clause 2.1.15 Method 1
Shrinkage Crack Resistance	No crack	Coutiho Ring Test HKHA/MTS (2006/2008) Specification Part D clause 2.1.6
Average Water Absorption Rate	3.5%	ASTM D570-81 (By 24 HRS immersion)
Resistance to Hydro Static pressure		
- Front Pressure	>8 BAR (80 meter waterhead)	Hong Kong MaterilaLab Accredited by Hoklas Laboratory
- Back Pressure	>1.8 BAR (18 meter backside penetration)	

3.0 Product Advantages

Coral W888 is cement based material; it is compatible to cement substrates. It has not only good bonding strength with concrete, brick, stone, marble, tile surfaces but also behave self as good surface in receiving onward plaster, paints and tile etc.

4.0 Crystallization Process of Coral W888

The chemicals contained in Coral W888 require the presence of moisture for the chemical reaction to take place and in combination with “free lime”, the chemicals in Coral W888 form long chained complex which crystallize in the capillaries. The crystalline growth or salt crystals are capable of penetrating deep into the capillaries of the concrete and are capable of bonding physically or chemically with large amount of moisture. Coral W888 crystalline will lie dormant if no moisture is present. If at a later date moisture reappears, the crystals reactivate to seal the cause of leakage.



Coral W888的防水機制
Waterproofing Mechanism
結晶化後形成的強力結合層將兩面扣緊



5.0 Typical Application

House basement, Basement walls, External Wall, Building foundation, Flooring, Parking lots, Water tank, Reservoir etc.

6.0 Application

Apply with a semi-stiff brush, a coconut fiber broom or trowel. Let dry for 8-24 hours, then the surface is remoisten before applying the second layer. Normally, if it is applied by semi-stiff brush, 2 coats of Coral W888 should achieve or exceed a minimum thickness of 2.5mm. Temperature range for application should be within 5°C and 35°C. Do not expose the material under strong sunlight during application.

7.0 Application Details

Preparation:

All surfaces should be sound, clean, dry, and free of dust, oil, grease or other contamination. Loose matter should be removed by abrasion, compressed air or high-pressure water. Honeycomb concrete, bristles, cracks, hollow joints and source of running water must be pretreated before application of Coral W888. (Please consult our technical department for recommendation on cracks treatment). Coral W888 is a ready-mixed mortar in drum for Method I and for Method II is in “set form” which composes of W888 Powder, A907 Net Mesh and a bottle of Labond C118 Curing Enhancer. On request basic, Coral W888 Powder can be supplied in paper bag).

Method I – Standing System Method

This method is applied while site condition allow at least 24 hours curing time for waterproofing work before application of onward cement work, plastering or paint coating, etc.

Add 6.5 liters of fresh water and powder onto 25kg bucket . Apply low speed electric stirrer (180Rpm) to mix until smooth homogenous paste is obtained. Never try to add additional water into the mortar after completion of mixing procedure. Manual mixing is acceptable for professional worker without low speed electric stirrer.

Apply the first coat in about 1.5mm thickness. Apply the second coat after 3 hours to achieve a total of at least 2.5mm thickness. Additional 24 hours curing time before onward finishing work to be proceeded. For Heavy Duty requirement, such as Car Park, Factories, etc. Fibre Net Mesh A907 is required to lay between two coatings forming as Sandwich System.

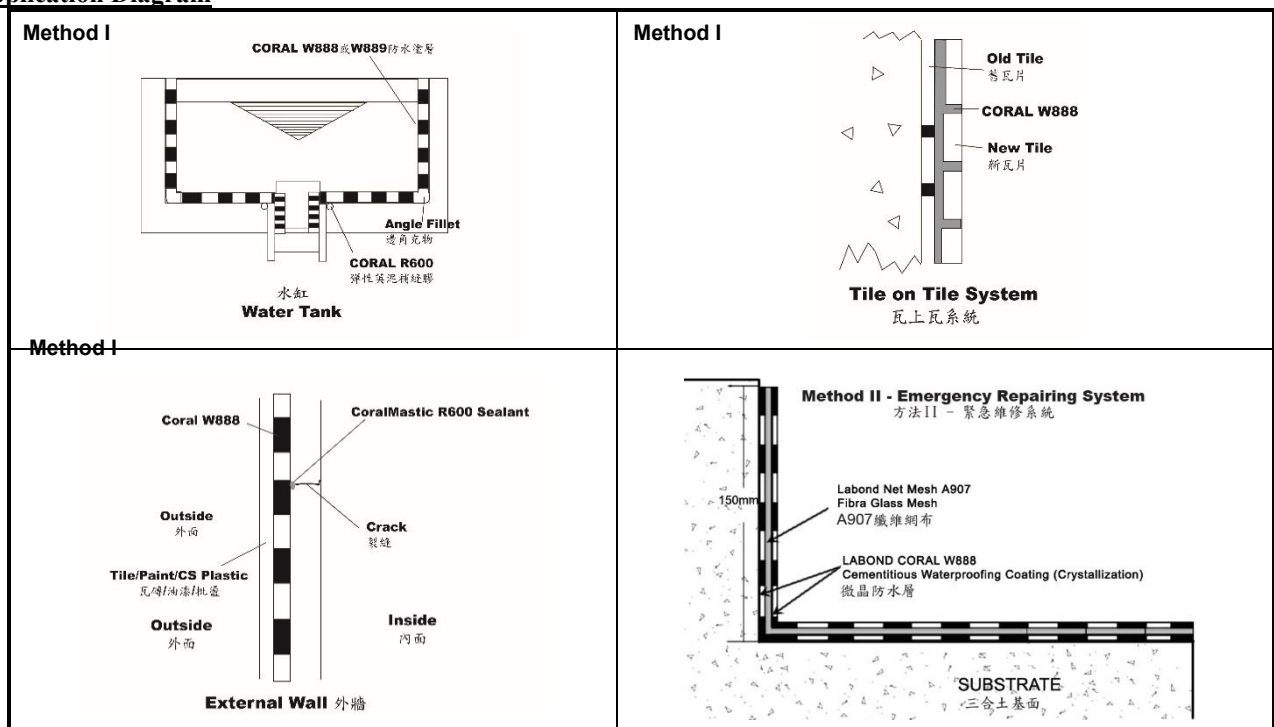
Method II – Emergency System Method

This method is applied for emergency repairing incident where onward cementitious work finish to be done right after application of Coral W888 coating within 45 minutes. This method is specially designed for both semi-dry laying and c/s screed tiling work (Refer Labond Technical Advisory Procedures for these works). Emergency set of CORAL W888 is pre-bagged with Part A (Powder), Part B (Liquid) in one bucket and Part C Net Mesh. Mix Powder and Liquid component to form homogeneous toolable mortar.

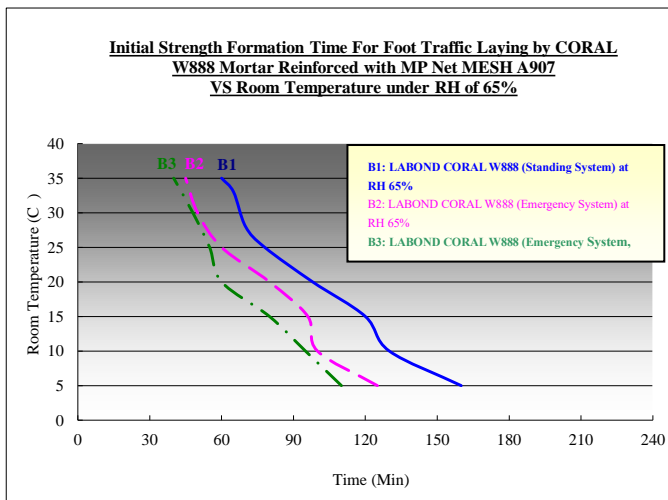
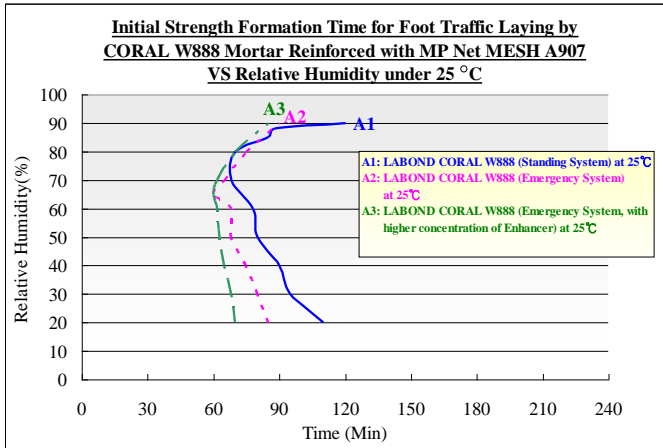
Apply low speed electric stirrer (180Rpm) to mix until smooth homogenous paste is obtained. Never try to add additional water into the mortar after completion of mixing procedure. Manual mixing is acceptable for professional worker without low speed electric stirrer.

Apply first coat in about 1.5mm thickness, then slightly press Labond Net Mesh A907 onto the first coat, then apply second coat to achieve at least a total of 2.5mm thickness.

Application Diagram



8.0 Strength Development for Foot Traffic for Onward Cement Work

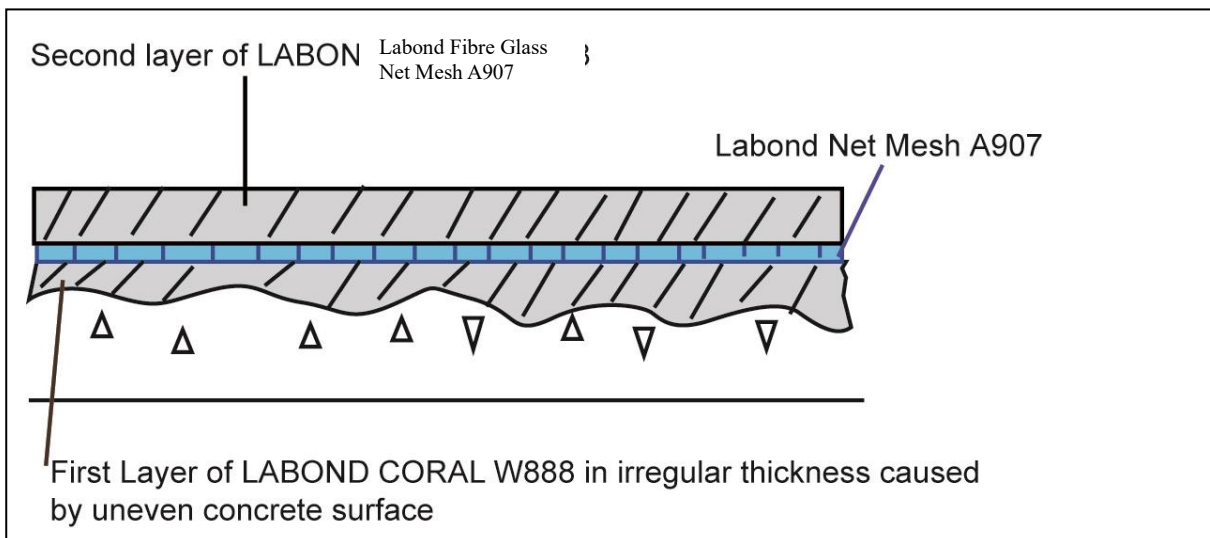


* The figure of above table are the result of practical findings recorded by LABOND’s R&D Department at site where is under good ventilation condition. Actual site conditions may cause different result.

9.0 Reinforcement Net Mesh Control for thickness on uneven Surface

Applying Labond A907 Net Mesh as sandwich system for Coral W888 will achieve 3 important quality control measures: -

- (i) Thickness control achieved by bedding effect of Net Mesh (See below Diagram)
- (ii) Strength reinforcement of Coral W888
- (iii) CRACK resistance capability



10.0 Material Coverage

Coral W888(Standing System) is packed by 25kg/Bucket, 3kgs is estimated to cover 1 m² of “2 coat” application.
 Coral W888(Emergency System) is packed by 10kg/ Bucket, 4kgs is estimated to cover 1 m² of sandwich coats application.

* Actual Coverage may be vary subject to rough of substrate.

Toxicity Test for Contact with Drink Water per National Standard of China GB/T17219-1998.

Test Report No. W312-0166-2003

Result: Passed, Suitable for direct contact with drink water for Human.

Content	Unit	Standard of requirement	Tested Value CORAL W888	Result
Arsenic	mg/L	≤0.005	<0.005	Passed
Mercury [Hg]	mg/L	≤0.001	<0.001	Passed
Chromium [Cr]	mg/L	≤0.005	<0.005	Passed
Cadmium [Cd]	mg/L	≤0.001	<0.001	Passed
Lead [Pb]	mg/L	≤0.005	<0.005	Passed
Silver [Ag]	mg/L	≤0.005	<0.005	Passed
Nitrate (Nitrogen[N])	mg/L	≤2	<2	Passed
Chloroform	µg/L	≤6	<6	Passed
Carbon Tetrachloride	µg/L	≤0.3	0.3	Passed
Benzo[a]pyrene	µg/L	≤0.001	zero	Passed
Fluoride [F]	mg/L	≤0.1	<0.1	Passed
Zinc [Zn]	mg/L	≤0.1	<0.1	Passed
Iron [Fe]	mg/L	≤0.02	<0.02	Passed
Copper [Cu]	mg/L	≤0.1	<0.1	Passed
Manganese [Mn]	mg/L	≤0.01	<0.01	Passed

11.0 Packaging

Standing System – 25kg W888/Bucket

W888 Emergency System – 10kg W888 + 2Liter MP Enhancer + 3M² Net Mesh

12.0 Health and Safety

CORAL W888 is non-toxic and suitable for application in water tank. Please handle the material according to General Safety procedure of cement base material.

13.0 Technical Services

The Technical office of Master Proofer Company Ltd are readily available for advice on any of LABOND’s products.