



CORALATEX C106

Bonding Agent for Cement Mortar System

水泥添加劑 (防水, 黏度, 強度及增塑)

1.0 Description

CORALATEX C106 is a kind of SBR copolymer modified admixture aiming at improving both physical and chemical properties of cement mortars. With CORALATEX C106, your cement products will increase plasticity, water-tightness, cohesion, workability, impact/abrasive resistance and surface bonding strength. Consequently, the concrete will have lower shrinkage rate comparing with normal cement mixture. Because of its non-hydrolyzable nature, it can be applied for those areas where are in continuous contact with water or sea water. CORALATEX C106 is not harmful and does not require any special environmental treatments.

2.0 Physical Data

Appearance	Milky White Liquid Dispersion
Density	1.02 at 20°C
pH	8 – 10
Non-volatile content	~50%
Freezing Point	0°C
Solubility	Miscible with water

3.0 Mixing Formulation and Scope of Application: Priming, Concrete Repair, Finishing, Flooring

Scope of Work	Formulation No.	Proportion	Components					CORAL ATEX C106	Water (Approx.)	Output	Estimated Coverage (Approx.)
			Cement	Dry Sand	Granite chip 2-5mm	Granite chip 5-10mm	MP Cellulose fibers				
Quality self-leveling floor screed or screed repair 3-25 mm thickness	C106-01	By Weight	50KG	125KG	-----	-----		7.5Ltr	15.5Ltr	0.1M ³	10M ² /10mm thickness
	By Volume (Approx.)		1	2	-----	-----		1	2	-----	-----
General floor screed >25mm	C106-02	By Weight	50KG	150KG	-----	-----		4Ltr	19Ltr	0.1M ³	10M ² /10mm thickness
	By Volume (Approx.)		1	2.5	-----	-----		1	5	-----	-----
General floor topping, Topping Repair 15-25 mm	C106-03	By Weight	50KG	75KG	75KG	-----		7.5Ltr	15.5Ltr	0.1M ³	10M ² /10mm thickness
	By Volume (Approx.)		1	1.25	1.25	-----		1	2	-----	-----
High strength/heavy duty floor screed, render, slab > 25mm	C106-04	By Weight	50KG	75KG	-----	75KG		4Ltr	19Ltr	0.1M ³	10M ² /10mm thickness
	By Volume (Approx.)		1	1.25	-----	1.25		1	5	-----	-----
Spalling, tiling, floor slab installation and waterproofing rendering	C106-05	By Weight	50KG	125KG	-----	-----		9Ltr	14Ltr	0.1M ³	10M ² /10mm thickness
	By Volume (Approx.)		1	2	-----	-----		1	1.5	-----	-----
General floor slab > 38 mm	C106-06	By Weight	50KG	150KG	-----	-----		4.5Ltr	18.5Ltr	0.1M ³	10M ² /10mm thickness
	By Volume (Approx.)		1	2.5	-----	-----		1	4	-----	-----
General cement work: repair, screeding, render, slab > 25mm	C106-07	By Weight	50KG	100KG	-----	100KG		4Ltr	19Ltr	0.15M ³	15M ² /10mm thickness
	By Volume (Approx.)		1	1.5	-----	1.5		1	5	-----	-----
Fibre Concrete: Quality Topping, Slab, Roofing, Spraying application >50mm	C106-08	By Weight	50 KG	150 KG (Quartz Sand)	-----	-----	150g	4Ltr	19Ltr	0.13 M ³	13M ² /10mm thickness
	By Volume (Approx.)		1	2.5	-----	-----	-----	1	5	-----	-----
High strength primer adhesives layer for mortar and for tiles installation	C106-A	By Weight	50KG	50KG	-----	-----		25Ltr	10Ltr	-----	1 – 3mm thickness
	By Volume (Approx.)		1	0.75	-----	-----		2.5	1	-----	105-120m ²

* Dry Sand means that those sand without moisture content or quartz sand from plant-made.

* For C106-A adhesion coat, all onward screeding must be applied before it starts to set (such as high compressive strength, impact resistance etc.)

* If there are special requirement of Mortar, you can consult Technical Department for specified formulation.

LABOND

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4.0 TESTING RESULT OF TECHNICAL PROPERTIES

4.1 Compressive and Flexural Strength at 28th Day

Standard Formulation	Compressive Strength (N/mm ²)	Flexural Strength (N/mm ²)	Test Report (Fugro Technical Services Limited)
	HKHA/MTS (2008/2010) Specification Part D Clause 2.1.1	BS6319:Part 3:1990	
C106-01	57	9.2	164136RM160201(1) 164136RM160266(1)

Standard Formulation	Compressive Strength (N/mm ²)	Flexural Strength (N/mm ²)	Test Report (Fugro Technical Services Limited)
	HKHA/MTS (2002/2004) Specification Part D Clause 2.1.1	BS6319:Part 3:1983	
C106-02	38	7.4	040123RM40098(3) 040123RM40098(4)
C106-03	55	6.0	040123RM40099(3) 040123RM40099(4)
C106-04	76	8.0	040123RM40100(3) 040123RM40100(4)
C106-05	71	15.6	040123RM40101(3) 040123RM40101(4)
C106-06	31	6.2	040123RM40102(4) 040123RM40102(5)
C106-07	70	7.6	040123RM40103(3) 040123RM40103(4)
C106-A	35	13.2	040123RM40104(3) 040123RM40104(4)

* The results shown in above table reflect maximum laboratory strengths achieved by formulation, casting and curing cubes in ideal conditions; site strengths may be vary subject to actual site conditions.

4.2 Coutinho Ring Shrinkage Cracking of Mortar

Testing Method: HKHA/MTS (2014/2016) Specification Part D Clause 2.1.6

Formulation: C106-01

Test Report (Fugro Technical Services Limited): 164136RM160201(3)

Age (days)	Trail 1		Trial 2		Trail 3	
	No. of crack	Width of crack (mm)	No. of crack	Width of crack (mm)	No. of crack	Width of crack (mm)
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	0
14	0	0	0	0	0	0
21	0	0	0	0	0	0
28	0	0	0	0	0	0

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Bonding Agent For Cement Mortar



4.3 Bond Strength

Standard Formulation	Bond Strength (N/mm ²)	Test Report (Fugro Technical Services Limited)
	HKHA/MTS (2014/2016) Specification Part D Clause 2.1.14	
C106-A	3.8	164136RM160201(4)

*The results shown in above table reflects maximum laboratory strengths achieved by casting and curing cubes in ideal conditions; site strengths may be vary subject to actual site conditions.

4.4 Water Permeability Test

Testing Method: In-house method CNMS-072

Formulation: C106-01

Test Report (Fugro Technical Services Limited): 164136RM160201(5)

Trial	Test Pressure (bar)	Elapsed Time (sec.)	Permeation (m ³)	Coefficient of Permeability (m/s)
1	5	3600	0	0
2	5	3600	0	0

*Test pressure of 5 bar is equivalent to front water pressure of 50 meters deep.

4.5 Toxicity Test

Testing Method: GB/T 17219-1998

Test Report (Guangzhou Products Quality Supervision & Testing Institute): W312-0167-2003

Result: Passed. Suitable for direct contact with drinking water.

Content	Unit	Standard of requirement	Tested Value C106 Mortar	Result
Arsenic [As]	mg/L	≤0.005	<0.005	Passed
Mercury [Hg]	mg/L	≤0.001	<0.001	Passed
Chromium (VI) [Cr ⁶⁺]	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 (in terms of Nitrogen[N])	mg/L	≤2	<2	Passed
Chloroform [CHCl ₃]	μg/L	≤6	<6	Passed
Carbon Tetrachloride [CCl ₄]	μg/L	≤0.3	0.1	Passed
Benzo[a]pyrene [C ₂₀ H ₁₂]	μg/L	≤0.001	Not detected	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

5.0 PACKAGING

5 liter/Can, 25 liter/ Drum, 150 liter/Bulk Drum.

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6.0 TECHNICAL ADVISORY NOTE

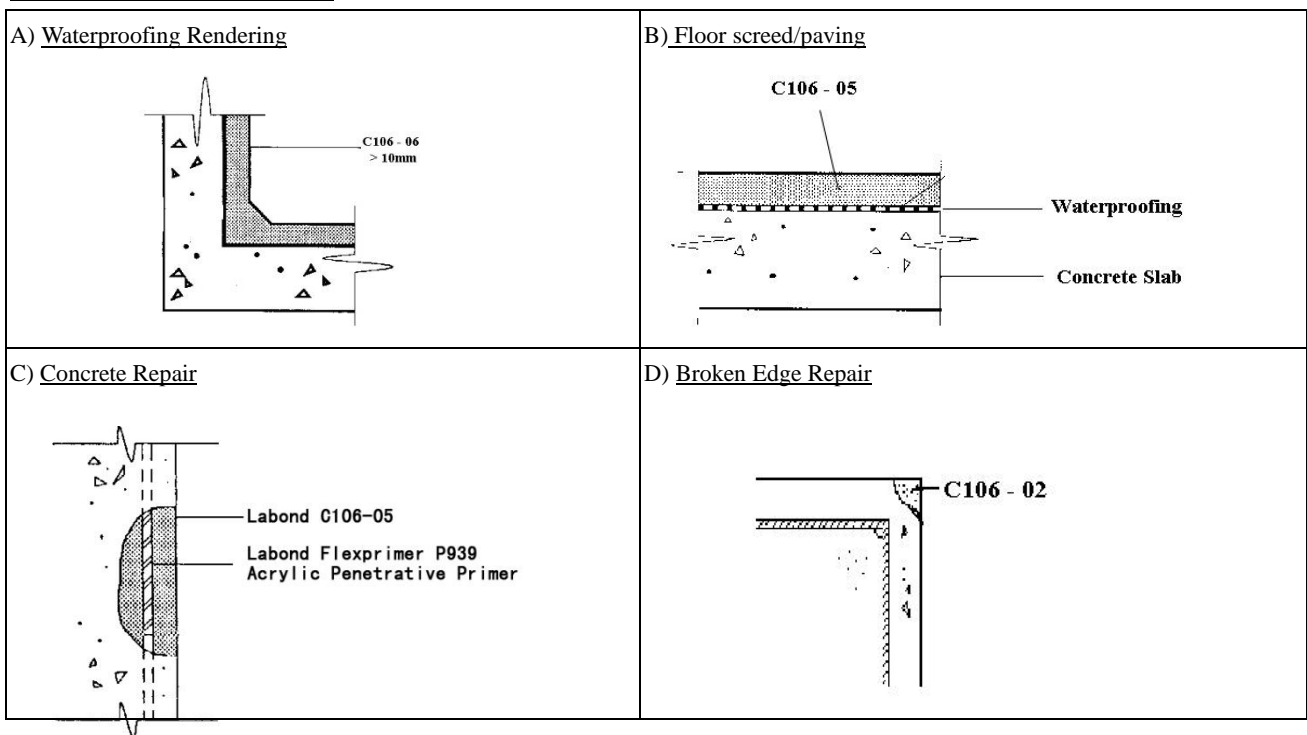
Adhesive Coat: C106-A

This is a compulsory layer to ensure high bond strength between old and new cement substrate. The bond coat is applied on the dampened surface. Onward mortar has to be applied onto the bond coat before it starts to set. Otherwise, it must be removed or thoroughly cross hatch scratched and reapplied. Application of adhesive coat under strong sunlight should be avoided. Bond Coat thickness will be 1-3mm depending on substrate condition.

7.0 SPECIFICATION GUIDE

Clean the substrate to achieve sound, firm and free from dust, oil. Apply "LABOND CORALATEX C106-A" bond coat (where necessary) onto dampened substrate and then apply LABOND CORALATEX C106 – "Mixing Formulation No. of paragraph 4.0" according to Manufacturer specification.

8.0 TYPICAL DRAWINGS



9.0 GENERAL APPLICATION

C106-05 : Waterproofing Screed on Roof



C106-01: Floor screed



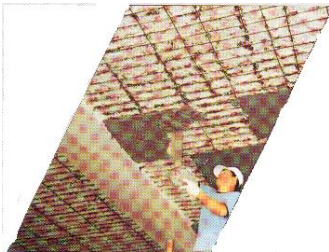
C106-A/01: Grouting and Adhesive for Tiles



C106 -04: Road/Concrete paving



C016-05: Spalling Concrete Repair



C106-05: Waterproofing Rendering

