

FUGRO TECHNICAL SERVICES LIMITED

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MaterialLab

Client Ref. : --
Report No. : 075231CN80407

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REPORT ON WATER PERMEABILITY TEST

Information Supplied by Client

Client : Master Proofer Company Limited
Project : Material Testing
Sample Description : Ø100mm Concrete Core with Construction Joint coated with Labond Coral W888 and MP mesh A907 (thickness 2.5mm)
Client Sample I.D. : --
Location of Drilled Core : 50mm thick concrete panel with construction joint (Concrete grade 25/20)

Laboratory Information

Lab. Sample I.D. : CN80407/A
Sample Received : 19 November 2008
Date Test Started : 16 December 2008
Date Test Completed : 08 January 2009
Diameter of Sample : 0.1001 m
Thickness of Sample (L) : 0.0515 m
Cross-Sectional Area (A) : 0.0079 m²
Test Method : In accordance with our in-house method ref. : CNMS-072

Test Results

Testing Pressure (bar)	Pressure Direction	Water Permeation of Sample	Coefficient of Permeability (m/s)
0.1	Front	No	#
0.5	Front	No	#
1.0	Front	No	#
1.5	Front	No	#
2.0	Front	No	#
2.5	Front	No	#
3.0	Front	No	#
4.0	Front	No	#
5.0	Front	No	#
8.0	Front	No	#

Remark : # The specimen was inspected and no watermark or seepage was found.

Checked by: Leates Date: 6/4/09 Certified by: Wong Tin Woon Date: 6-4-09

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Client Ref. : --

Report No. : 075231CN80407(1)

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REPORT ON WATER PERMEABILITY TEST

Information Supplied by Client

Client : Master Proofer Company Limited
Project : Material Testing
Sample Description : Ø100mm Concrete Core with Construction Joint coated with Labond Coral W888 and MP mesh A907 (thickness 2.5mm)
Client Sample I.D. : --
Location of Drilled Core : 50mm thick concrete panel with construction joint (Concrete grade 25/20)

Laboratory Information

Lab. Sample I.D. : CN80407/B
Sample Received : 19 November 2008
Date Test Started : 16 December 2008
Date Test Completed : 20 December 2008
Diameter of Sample : 0.1003 m
Thickness of Sample (L) : 0.0513 m
Cross-Sectional Area (A) : 0.0079 m²
Test Method : In accordance with our in-house method ref. : CNMS-072

Test Results

Testing Pressure (bar)	Pressure Direction	Water Permeation of Sample	Coefficient of Permeability (m/s)
0.1	Back	No	#
0.5	Back	No	#
1.0	Back	No	#

Remark : # The specimen was inspected and no watermark or seepage was found.

Checked by: Leate Date: 6/4/09 Certified by: Wong Tin Woon Date: 6-4-09
Wong Tin Woon

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MaterialLab

Report No. : 075231RM90097(3)

Page 1 of 1

REPORT ON COUTINHO RING SHRINKAGE CRACKING OF MORTAR

Information Supplied by Client

Client : Master Proofer Company Limited

Client Address : Unit I, 8/F., On Ho Ind. Bldg., 17-19 Shing Wan Road, Tai Wai, Shatin, N.T.

Project : Material Testing

Client Ref.: --

Main Contract No.: --

Work Order No. : --

Serial No.: --

Client Sample ID. : --

Sample Description - Type : Labond Coral W888 and MP Mesh A907
Source : Master Proofer Company Limited
Batch No. : MC90679

Laboratory Information

Lab Batch ID : RM90097/2

Date Received (Raw Materials) : 27-Mar-2009

Date Tested : 03-Apr-2009 to 01-May-2009

Location of Mixing : Concrete Laboratory of MaterialLab

Ambient Conditions during Preparation : 23°C, 64%RH Ambient Conditions during Testing : 27°C, 55%RH

Curing Regime : 27 ± 2 °C, 55 ± 5 %RH


Test Method : HKHA/MTS (2006/2008) Specification Part D Clause 2.1.6

Test Results


Lab Specimen Identification		RM90097/2A		RM90097/2B		RM90097/2C	
Mass of Specimen (g)	when demoulded	1237.7		1231.1		1239.9	
	when cracking first occur	-		-		-	
Dimensions of Specimen (A x B x H) (mm)		174.9 x 114.9 x 50.0		175.0 x 114.9 x 50.1		174.9 x 115.0 x 50.3	
Age at measured (days)	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	

Remarks : 1. A is outer diameter of specimen.
2. B is inner diameter of specimen.
3. H is thickness of specimen.

Checked by :



Certified by :


Kwok Chi Wa (Senior Engineer)

Date :

11-5-09

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MaterialLab

Report No. : 075231RM90066(2)

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REPORT ON COMPRESSIVE STRENGTH TEST OF MORTAR CUBES

Information Supplied by Client

Client : Master Proofer Company Limited
Client Address : Unit I, 8/F., On Ho Ind. Bldg., 17-19 Shing Wan Road, Tai Wai, Shatin, N.T.
Project : Material Testing
Main Contract No. : -- Client's Ref. : --
Works Order No. : --
Serial No. : --
Sample Description - Product Name : Labond Coral W888
Source : Master Proofer Company Limited
Batch No. : ML83570
Client Specimen ID. : --

Laboratory Information

Laboratory Batch ID. : RM90066/1
Date Received of Raw Materials: 02-Mar-2009
Date Cast : 10-Mar-2009
Date Tested : 07-Apr-2009
Age at Test : 28 days
Method of Compaction : By Hand
Sample Location : Concrete Laboratory of MaterialLab
Nominal Size of Specimens : 70.7 x 70.7 x 70.7 mm
Ambient Conditions - Preparation of the Specimens : 23°C, 64 % RH
Testing of the Specimens : 20°C, 72 % RH
Curing Conditions : 27±2 °C, 55±5 % RH
Test Method : HKHA / MTS (2006/2008) Specification Part D Clause 2.1.1

Test Results

Laboratory Specimen I.D.	Client Specimen I.D.	Dimension (L x W x H) (mm)	Mass (g)	Density (kg/m ³)	Max. Load (kN)	Comp. Strength (N/mm ²)	Mode of Failure ¹
RM90066/1D	---	70.7 x 70.7 x 71.2	618.5	1740	175.4	35	Satisfactory
RM90066/1E	---	70.7 x 70.7 x 71.7	622.0	1740	176.1	35	Satisfactory
RM90066/1F	---	70.7 x 70.6 x 71.5	622.8	1750	172.4	34	Satisfactory
Arithmetic mean						35	

Note :

1. The mode of failure of the test specimens refers to the Figure 6 of CS1 : 1990 : Section 12.

Checked by : Late Date : 8/4/09 Certified by : [Signature] Date : 9-4-09
Kwok Chi Wa (Senior Engineer)

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MaterialLab

Report No. : 075231RM90066(8)

Page 1 of 1

REPORT ON PULL OFF TEST

Information Supplied by Client

Client : Master Proofer Company Limited
Project : Material Testing
Location : Panel at Concrete Lab. of Fugro Technical Services Limited
Type of the Material Under Testing : Labond Coral W888
(1st layer Labond Coral W888 + A907 Mesh + 2nd layer Labond Coral W888)

Laboratory Information

Date Received : 13-Mar-2009
Tensile Strength of Concrete Panel When Applicable for Pull Off Test : 2 N/mm²
Date of Applying 1st Coat of Sample on Concrete Surface and the Coverage : 14-Mar-2009
Date of Applying 2nd Coat of Sample on Concrete Surface and the Coverage : 14-Mar-2009
Date of Pull Off Test : 28-Mar-2009
Duration Time of the 2nd Waterproofing Membrane Being Laid to Pull Off Being Tested : 14 days
Description of Pull Off Tester : Dyna Z16E
Description of Dolly : Aluminium Dolly of 50 mm Diameter x 25mm Thickness
Type of Adhesive : Fast-set 4 Minutes Clear Epoxy
Environmental Condition : 20 °C, 58 % RH
Test Method : HKHA Specification Library 2004 Edition WAT 6 M010.4 Clause 2j

Test Results

Laboratory Sample ID.	RM90066/4A	RM90066/4B	RM90066/4C	RM90066/4D	RM90066/4E	RM90066/4F
Core Diameter (mm)	1970	1970	1970	1970	1970	1970
Failure Load, (N)	4470	3580	3760	4120	3940	3670
Bond Strength (N/mm ²)	2.3	1.8	1.9	2.1	2.0	1.9
Mean (N/mm ²)	2.0					
Criteria	Not Less Than 0.8N/mm ² (HKHA Specification 2004 Edition WAT 6 M010.4 Clause 2f)					

Remark : (1) Adhesive failure occurs at the interface between top layer of Labond Coral W888 and A907 Mesh.

Checked by : J. Cato Date : 31/3/09 Certified by : [Signature] Date : 1-4-09

Kwok Chi Wa (Senior Engineer)