

A BKG HOLDING COMPANY



IND91565

## INITIAL SURFACE ABSORPTION OF CONCRETE - TEST REPORT

Client : State of Qatar  
 Contractor : China Harbour Engineering Co.  
 Address : P.O. Box 491, Doha, Qatar  
 Project : New Port Project

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Sample Description : 150 mm Ø Concrete Core  
 Structural Ref. : 2m x 2m x 2m Concrete Block  
 Condition of sample when received : Satisfactory  
 Source/Location : Precast Yard  
 Concrete Grade : 40 MPa

Report No. : 22141  
 Report Date : 03/09/2012

Date of Cast : 06/08/2012  
 Date Sample Received : 01/09/2012  
 Date Test Started : 02/09/2012  
 Date Test completed : 03/09/2012  
 Test method : BS 1881 : Part 208  
 Test method variation : None

QEL Project No. : CHE 102/11  
 QEL Work Order No. : 16610  
 QEL Sample No. : 28415/1-2

Tested By : PR

## Test Result

Date of Cast	06/08/2012	
Age of Concrete	28 days	
Identification and description of test specimen	Concrete	Form Work Liner
Description of conditioning prior to test	Air Dry	Air Dry
Description of surface of concrete	Flat & Smooth	Flat & Smooth
Whether horizontal or vertical surface under test	Horizontal	Horizontal
Method of sealing cap	Rubber	Rubber
Temperature of the concrete surface (°C)	21	21
a) Area of water contact of cap (mm <sup>2</sup> )	5595	5595
b) Depth of cap (mm)	18	18
c) Length of capillary (mm)	450	450
Initial surface absorption, ml/(m <sup>2</sup> ·s)		
After 10 minutes	0.07	0.03
After 30 minutes	0.05	0.02
After 1 hour	0.04	0.01

Remarks: None

Checked by

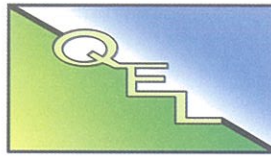
Rajath Baburaj  
 QA/QC



N. Sabu  
 Laboratory Manager

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 TRF/059/Rev.00



**CONCRETE CHLORIDE MIGRATION TEST - REPORT**

Client : State of Qatar  
Contractor : China Harbour Engineering Co.  
Address : P.O. Box 491, Doha Qatar  
Project : New Port Project

Sample description	: 100 mm Ø Concrete Core	Report No	: 22141
Structural Reference	: 2m x 2m x 2m Concrete Block	Report Date	: 03/09/2012
Grade of concrete	: 40 MPa	QEL Project No	: CHE 102/11
Source/Location	: Precast Yard	QEL Work Order No	: 16610
Date Sample received	: 01/09/2012	QEL Sample No	: 28415/1-2
Date Test started	: 02/09/2012		
Date Test completed	: 03/09/2012		
Test Method	: NT BUILD 492 Approved 1999-11		
Test Method variation	: None		

Tested by : PR

**Test Result**

Date of Cast	06/08/2012	
Age of Concrete	28 days	
Identification and description of test specimen	Concrete	Form Work Liner
Specimen Diameter ( mm )	99	99
Specimen Thickness (mm)	50	50
Test Age ( Days )	28	28
Applied Voltage after Adjustment ( V )	25	35
Initial current after Voltage adjustment ( mA )	65	37.9
Initial temperature of Anolyte solution (°C)	21	27
Final current before terminating the Test (mA)	43	30
Final temperature of Anolyte solution (°C)	23	23
Penetration Depth (mm)	8	4.17
Migration Coefficient m <sup>2</sup> /s	5.36 X 10 <sup>-12</sup>	1.9 X 10 <sup>-12</sup>

Remarks: None

Checked by

Rajath Baburaj  
QA/QC



N. Sabu  
Laboratory Manager

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