

Paving Block

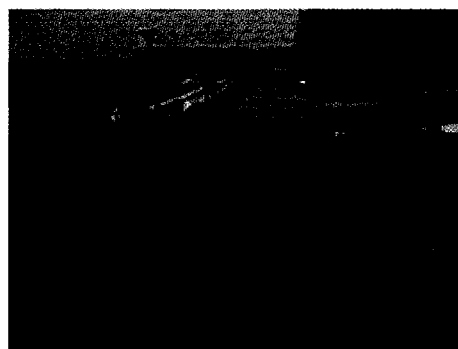
TIOSTONE

Waste Recycling • Pollution Control

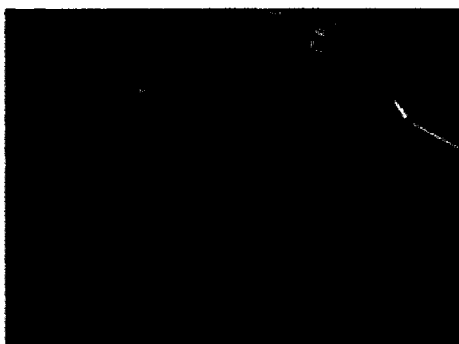
Recycled Concrete Paving Block



Public recreation playground



Local Institute



Private properties



Local Institute

An Effective Way to improve

The Environment in Hong Kong

Exclusive Agent



GREENWAY
BUILDING MATERIALS LIMITED
綠威建材有限公司



21/F., Shun Kwong Commercial Building, 8 Des Voeux Road West Hong Kong

Tel: 2545-7272


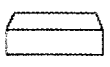



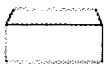

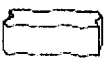

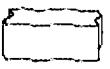
Fax: 2547-3075

TIOSTONE Paving Blocks Series

Recycled Aggregate Concrete Pavers

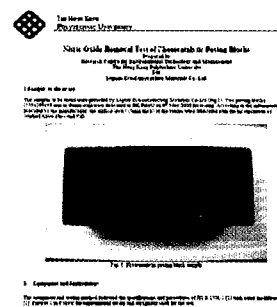
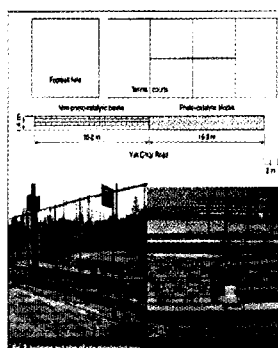
ECO-Glass Concrete Pavers

APR (Air Pollutants Removal) Concrete Pavers

Paving		
		200 x 100 x 50 mm
		200 x 100 x 60 mm
		200 x 100 x 80 mm
		225 x 112.5 x 60 mm
		225 x 112.5 x 80 mm

Paving	
Compressive strength:	
> 30 MPa (footpath or cycle track)	
> 45 MPa (vehicular access)	
Skid resistance:	
> 45	

測試報告



生產設備



生產TIOSTONE的材料：廢棄玻璃瓶



九龍龍崗有限公司

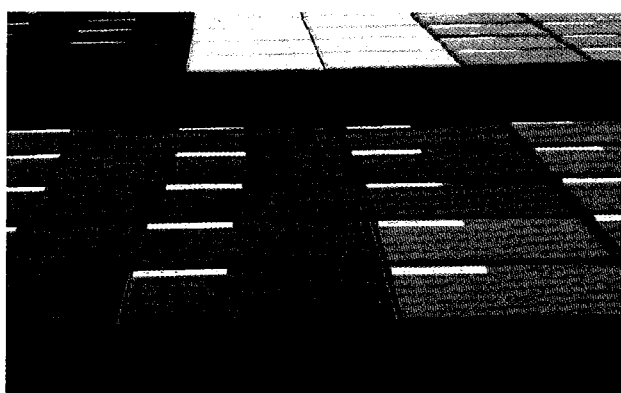


Helping people fly, with you



Recycled Aggregates Concrete Pavers

TIOSTONE Recycled Aggregates Concrete Paver is a concrete paver contains recycled aggregates, river sand and cement which can reduce construction wastes to landfills in Hong Kong. **TIOSTONE Recycled Aggregates Concrete Paver** was invented by the research team led by Prof.C.S. Poon of the Hong Kong Polytechnic University. The technology, patented in Hong Kong, effectively uses recycled aggregates as a major constituent in the production of concrete pavers. As more than 6,000 tonnes of construction wastes are generated daily in Hong Kong, this invention reduces the disposal of construction wastes as well as preserving the use of natural materials.



Suitable area :

Pedestrian footpath, Car Park, Emergency Vehicular Access and also Square.

Applicable Standard :

BS6717:2001, AS/NZS4456.14:1997, BS6677:1986

HKHA Specification Library 2004 Edition EXT3.T130.4 to T150.4

Performance Properties :

Compressive Strength >30 Mpa (60mm thick for walkway),
> 45 Mpa (80mm thick for driveway).

Degree of abrasion resistance: < 23mm

Unpolished Skid Resistance Value (USRV) : > 45

Water Absorption : < 6%

Advantages of TIOSTONE Recycled Aggregates Concrete Paver

- 1) Use **recycled materials** to reduce construction wastes to landfills. (also reduce mining)
- 2) Unlike Clay Pavers, **NO Green House Gas** is generated during production.
- 3) Modern face-mix (double-layer) design to eliminate the discoloration of pavers. (Traditional homogeneous color is also available upon request.)
- 4) Iron oxide color pigment is used to ensure sharp and stable color
- 5) Our Recycled Aggregates Concrete Pavers are made by fully automatic German MASA concrete block making machine to ensure the excellent quality of goods.
- 6) Made in Hong Kong with a reliable production lead time and economic transportation cost.
- 7) Reduce Heat Island Effect
- 8) Using of our Recycled Aggregates Concrete Paver is subject to the HK-BEAM and LEED credit points.



Sizes:

Classic Series (Basic) 200 x 100 x 60mm, 200 x 100 x 80mm

225 x 112.5 x 60mm & 225 x 112.5 x 80mm

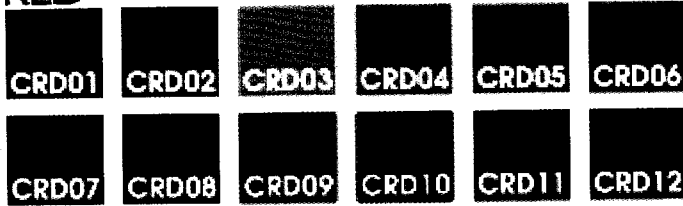
Custom-made sizes are upon request depending on the quantity.

All relevant references of the product are available upon request.

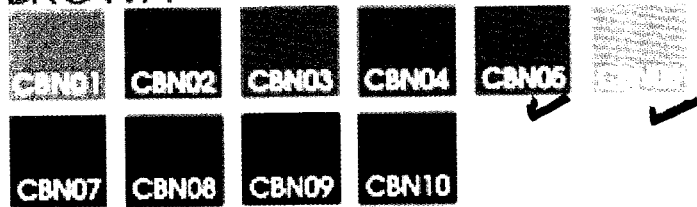
TIOSTONE

天興石

RED



BROWN



GREEN



BLUE



BLACK & GRAY



Local Institute



Local Institute



Public School - Green Roof



Public properties

COLORS

Due to printing limitations, colors shown may vary from that of actual **TIOSTONE**.

Customers are advised to make final selection from actual samples.



Notable Mention
ECO-Products Award 2006



Merit Award
Green Building Award 2006

Environmental Innovations Paving Blocks





佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

TEST CERTIFICATE
DETERMINATION OF SHAPE AND DIMENSIONS OF PAVING BLOCK
(BS 6717 : 2001, Annex B)

Date of issue: 24-11-2008

Page 1 of 1 page

Castco LRN: HC281121-1

Details as supplied by client

Client: Laputa Eco-construction Material Co. Ltd.

Client's ref. no.: -

Contract no.: -

Job title: -

Work dimension: 200 x 100 x 60 mm

Type: Paving Block

Laboratory Test Result

Date received: 21-11-2008

Date tested: 22-11-2008

Specimen no.	1	2	3	4	5	6	7	8
<u>Overall dimensions</u>								
Length	L1	200	200	200	200	200	200	200
	L2	200	200	201	200	200	200	200
Width	W1	100	100	100	100	100	100	100
	W2 (mm)	100	100	100	101	101	100	100
Thickness	Average	61	61	61	60	61	61	60
	Max - Min (mm)	1	0	0	0	0	1	1
<u>Flatness and Bow</u>								
Convex	Diagonal 1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
	2	0.1	0.1	0.2	0.1	0.0	0.1	0.1
Concave	Diagonal 1	0.2	0.0	0.1	0.1	0.1	0.1	0.1
	2 (mm)	0.1	0.1	0.1	0.1	0.0	0.2	0.2
<u>Chamfer</u>								
<u>Critical chamfer length</u>								
Average (mm)		3	3	3	3	3	3	3
<u>Horizontal chamfer length</u>								
Average (mm)		5	5	5	5	5	5	5
<u>Thickness of facing layer</u> (Split sample)								
Minimum thickness on the split face (mm)								

Remarks:

1. Test results are related to the specimens tested only.
2. Test results comply to BS 6717:2001, Cl.5.2.1 & Cl.5.2.4.

Checked by:

M. L. LAM

Certified by:

CHOI TZE WING
C. Eng., MBE, MICE
Quality Manager

香港粉嶺安居街33號 33, On Kui Street, Fanling, Hong Kong.
香港粉嶺安全街29A號 29A, On Chuen Street, Fanling, Hong Kong.

Tel: 2677 2138
Fax: 2677 0351

E-mail: castco@netvigator.com Website: www.castco.com.hk



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

香港粉嶺安居街33號 33, On Kui Street, Fanling, Hong Kong. Tel: 2677 2138
香港粉嶺安全街29A號 29A, On Chuen Street, Fanling, Hong Kong. Fax: 2677 0351
E-mail: castco@netvigator.com Website: www.castco.com.hk



Test Certificate

Determination of Characteristic Compressive Strength of Paving Blocks
[General Specification for Civil Engineering Works 2006 Edition Appendix 11.1]

Date of issue: 31-01-2008

Page 1 of 1 page

Castco LRN: HC280128-1

Details as supplied by client

Client: Laputa Eco - Const. Material Co. Ltd.

Client's Ref. No.: --

Job Title: Construction of Aldrich Bay Phase 5

Contract No.: 20040062

Sample Description: Paving Block

Shape: Rectangular

Sample Nominal Size (Length x Width x Height): 200 x 100 x 60 mm

Type: --

Source & Manufacturer: --

Date of Manufacture: --

Identification Marks: 1 to 8

Laboratory Test Result

Date Received: 28-01-2008

Date Tested: 30-01-2008

Age: -- days

Identification mark	1	2	3	4	5	6	7	8
Lesser dimension of the two plan (L) (mm)	98	98	98	98	98	98	98	98
Nominal height (H) (mm)	59	59	59	59	59	59	59	60
Nominal gross plan area (A) (mm ²)	19400	19400	19500	19600	19400	19400	19400	19400
Breaking Load (P) (kN)	1022	915	1049	1143	970	929	1102	1191
Compressive Strength $C = \frac{1000 P}{A} \times \frac{2.5}{1.5 + L/H}$ (MPa)	42	37	43	46	40	38	45	49
Square of Compressive Strength C^2 (MPa ²)	1738.9	1391.3	1806.5	2125.2	1560.3	1436.4	2016.0	2401.0
The Sum of Square of Compressive Strength ΣC^2 (MPa ²)	14475.4							
Average of Compressive Strength C_m (MPa)	42							
Unbiased Standard Deviation $s = \frac{\sqrt{\Sigma C^2 - n(C_m)^2}}{n-1}$ (MPa)	2							
The Characteristic Strength of the Batch $C_o = C_m - 1.65s$ (MPa)	40							
Compliance: (Appendix 11.85(4))	30MPa for blocks in footways and cycle tracks							

- Remark 1. Test result relates to the specimen tested only.
2. Test result meets the compliance stated above.

M. L. LAM

Checked by:

Certified by:

CHOI TZE WING
C.Eng., MHKIE MICE
Laboratory Engineer

Form No. CON EN_A (S2006 T & 04/05/2107)

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation. This report shall not be reproduced unless with prior written approval from this laboratory.



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

Test Certificate

Measuring Abrasion Resistance of Precast, Unreinforced Concrete Paving Blocks
(Tested to BS 6717 : 2001 Annex F)

Date of issue : 08-12-2006

Page 1 of 1 page

Castco LRN : HC261204-2

Details as supplied by client

Client : Laputa Eco-Const. Material Co. Ltd.

Job Title : --

Sample Description : Paving Block

Nominal Size (Length x Width x Thickness) : 200 x 100 x 60 mm

Client's Ref. No. : --

Contract No. : --

Type : --

Laboratory test results

Date sample received : 04-12-2006

Date of test : 04-12-2006

Specimen no.	1	2	3
Specimen size (Length x Width x Thickness) (mm)	199 x 100 x 60 mm	200 x 100 x 59 mm	200 x 100 x 59 mm
Maximum convex (mm)	0.1	0.2	0.1
	0.2	0.3	0.2
Maximum concave (mm)	0.2	0.2	0.3
	0.1	0.2	0.1
Max. convex after grounded (if necessary) (mm)	--	--	--
Max. concave after grounded (if necessary) (mm)	--	--	--
Width of groove (mm)	70.3	70.4	70.5
Length of groove (L) (mm)	18.5	19.0	18.7
Calibration factor (c) (mm)	20.3		
Degree of abrasion (mm)	18.0	18.5	18.5

Remark:

1. Test results relate only to the specimens tested.

Checked by :

M. L. LAM

Certified by :

CHOI TZE WING
C.Eng., M.HKIE, MICE
Laboratory Engineer

Form no.: BLK_6717-1001F_T dd 25/06/2003

Test Certificate

Unpolished Skid Resistance Value (USRV) of Concrete Paving Blocks
(Tested to BS 6717 : 2001 Annex G)

Date of issue : 12-06-2006

Page 1 of 1 page

Castco LRN : HC260606-2

Details as supplied by client

Client : Laputa Eco-Construction Material Co. Ltd.

Client's Ref. No. : --

Job Title : --

Contract No. : --

Sample Description : Paving block

Type : --

Nominal Size (Length x Width x Thickness) : 200 x 100 x 60 mm

Laboratory test results

Date sample received : 06-06-2006

Date of test : 07-06-2006

Ambient temp. : 20 °C

Specimen no.	Recorded individual readings at 0°					Mean of last three readings	Recorded individual readings at 180°					Mean of last three readings	Unpolished skid resistance value
1	81	81	80	81	79	80	83	81	79	76	79	78	79
2	83	87	85	84	84	84	87	85	85	83	83	84	84
3	87	90	89	87	84	87	85	85	83	82	80	82	85
4	87	88	85	88	87	87	85	84	82	81	81	81	84
Average unpolished skid resistance value												83	

Remarks

1. Test results relate only to the specimens tested.

Checked by :

M. L. LAM

Certified by :

KEITH CHOI
C.Eng., MHKIE MICE
Laboratory Engineer



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

香港粉嶺安居街33號 33, On Kui Street, Fanling, Hong Kong. Tel: 2677 2138
香港粉嶺安全街29A號 29A, On Chuen Street, Fanling, Hong Kong. Fax: 2677 0351
E-mail: castco@netvigator.com Website: www.castco.com.hk



Test Certificate

Determination of Water Absorption Properties of Masonry Units and Segmental Pavers
(AS/NZS 4456.14:1997)

Date of issue: 22-09-2008

Page 1 of 1 page

Castco LRN: HC280909-1

Details as supplied by client

Client: Laputa Eco-Construction Material Co. Ltd.

Client's Ref. No.: --

Contract No.: --

Job Title: --

Sample Type: Paving Block

Date cast: --

Sample Size: 200 mm x 100 mm x 60 mm

Source: --

Location of Sampling: --

Date of Sampling: --

Laboratory Test Result

Date Received: 09-09-2008

Date Tested: 12-09-2008

Specimen no:	1	2	3	4	5	6	7	8	9	10
Cold water immersion water absorption (%)	5.7	5.9	4.4	5.9	5.1	5.9	4.8	5.8	4.3	5.0
Average cold water immersion water absorption (%)	5.3									
Boiling water absorption (%)										
Average boiling water absorption (%)										

Remark:

1. Test result relate to the specimen tested only.
2. Only cold water immersion test was performed on test specimens as requested by client.

Checked by:

M. L. LAM

Certified by:

CHOI TZE WING
C. Eng., MHKIE, MICE
Quality Manager

Form No. 31, CON AS4456, T1.d3 15/10/2007



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

TEST CERTIFICATE
DETERMINATION OF SHAPE AND DIMENSIONS OF PAVING BLOCK
(BS 6717: 2001, Annex B)

Date of issue: 24-11-2008

Page 1 of 1 page

Castco LRN: HC281120-3

Details as supplied by client

Client: Laputa Eco-construction Material Co. Ltd.

Client's ref. no.: --

Contract no.: --

Job title: --

Work dimension: 200 x 100 x 80 mm

Type: Paving Block

Laboratory Test Result

Date received: 20-11-2008

Date tested: 21-11-2008

Specimen no.	1	2	3	4	5	6	7	8
Overall dimensions								
Length	L1	199	200	200	200	200	200	200
	L2	200	200	200	200	200	200	200
Width	W1	100	100	100	100	100	100	100
	W2 (mm)	101	100	101	100	100	100	101
Thickness	Average	81	80	81	80	80	81	80
	Max - Min (mm)	0	0	0	1	1	1	0
Flatness and Bow								
Convex	Diagonal 1	0.2	0.1	0.1	0.2	0.1	0.2	0.0
	2	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Concave	Diagonal 1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	2 (mm)	0.2	0.1	0.1	0.2	0.2	0.2	0.1
Chamfer								
Vertical chamfer length								
Average (mm)		3	4	3	4	3	3	3
Horizontal chamfer length								
Average (mm)		5	5	5	5	5	5	4
Thickness of facing layer (Split sample)								
Minimum thickness on the split face (mm)								

Remarks:

1. Test results are related to the specimens tested only.
2. Test results comply to BS 6717:2001, Cl.5.2.1 & Cl.5.2.4.

Checked by:

M. L. LAM

Certified by:

CHOI TZE WING
C. Eng., MBE, MICE
Quality Manager

香港粉嶺安居街33號 33, On Kui Street, Fanling, Hong Kong.

香港粉嶺安全街29A號 29A, On Chuen Street, Fanling, Hong Kong.

E-mail: castco@netvigator.com Website: www.castco.com.hk

Tel: 2677 2138

Fax: 2677 0351



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

TEST CERTIFICATE
DETERMINATION OF SHAPE AND DIMENSIONS OF PAVING BLOCK
(BS 6717 : 2001, Annex B)

Date of issue: 24-11-2008

Page 1 of 1 page

Castco LRN: HC281120-3

Details as supplied by client

Client: Laputa Eco-construction Material Co. Ltd.

Client's ref. no.: --

Contract no.: --

Job title: --

Work dimension: 200 x 100 x 80 mm

Type : Paving Block

Laboratory Test Result

Date received: 20-11-2008

Date tested: 21-11-2008

Specimen no.			1	2	3	4	5	6	7	8
Overall dimensions										
Length	L1		199	200	200	200	200	200	200	200
	L2		200	200	200	200	200	200	200	200
Width	W1		100	100	100	100	100	100	100	100
	W2	(mm)	101	100	101	100	100	100	100	101
Thickness	Average		81	80	81	80	80	81	80	80
	Max - Min	(mm)	0	0	0	1	1	1	0	0
Flatness and Bow										
Convex	Diagonal	1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.0
		2	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1
Concave	Diagonal	1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
		2 (mm)	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1
Chamfer										
Vertical chamfer length										
		Average (mm)	3	4	3	4	3	3	3	3
Horizontal chamfer length										
		Average (mm)	5	5	5	5	5	5	5	4
Thickness of facing layer (Split sample)										
Minimum thickness on the split face (mm)										

Remarks:

1. Test results are related to the specimens tested only.
2. Test results comply to BS 6717:2001, Cl.5.2.1 & Cl.5.2.4.

Checked by:

M. L. LAM

Form No. CASTCO/SL/6717_1/01/07/11/2002

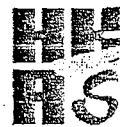
Certified by:

CHOI TZE WING
C. Eng., MBEKIE, MICE
Quality Manager



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

香港粉嶺安居街33號 33, On Kui Street, Fanling, Hong Kong. Tel.: 2677 2138
香港粉嶺安全街29A號 29A, On Chuen Street, Fanling, Hong Kong. Fax: 2677 0351
E-mail: castco@netvigator.com Website: www.castco.com.hk



HOKLAS 032

Test Certificate

Determination of Characteristic Compressive Strength of Paving Blocks
[General Specification for Civil Engineering Works 2006 Edition Appendix 11.1]

Date of issue: 31-01-2008

Page 1 of 1 page

Castco LRN: HC280128-2

Details as supplied by client

Client: Laputa Eco - Const. Material Co. Ltd.

Client's Ref. No.: --

Job Title: Construction of Aldrich Bay Phase 5

Contract No.: 20040062

Sample Description: Paving Block

Shape: Rectangular

Sample Nominal Size (Length x Width x Height): 200 x 100 x 80 mm

Type: --

Source & Manufacturer: --

Date of Manufacture: --

Identification Marks: 1 to 8

Laboratory Test Result

Date Received: 28-01-2008

Date Tested: 30-01-2008

Age: -- days

Identification mark	1	2	3	4	5	6	7	8
Lesser dimension of the two plan (L) (mm)	98	98	98	98	98	99	98	98
Nominal height (H) (mm)	81	81	81	81	81	81	81	81
Nominal gross plan area (A) (mm ²)	19400	19400	19400	19500	19400	19600	19500	19500
Breaking Load (P) (kN)	1355	1521	1423	1421	1429	1409	1586	1420
Compressive Strength $C = \frac{1000 P}{A} \times \frac{2.5}{1.5 + L/H}$ (MPa)	64	72	68	67	68	66	75	67
Square of Compressive Strength -- C^2 (MPa ²)	4147.4	5227.3	4583.3	4515.8	4569.8	4356.0	5580.1	4515.8
The Sum of Square of Compressive Strength $\sum C^2$ (MPa ²)	37495.5							
Average of Compressive Strength C_m (MPa)	68							
Unbiased Standard Deviation $s = \frac{\sqrt{\sum C^2 - n(C_m)^2}}{n-1}$ (MPa)	1							
The Characteristic Strength of the Batch $C_k = C_m - 1.65s$ (MPa)	66							
Compliance (Appendix 11.85(4))	45MPa for blocks in carriageways and paved areas to which vehicles will have access							

Remark: 1. Test result relates to the specimen tested only.
2. Test result meets the compliance stated above.

Checked by:

M. L. LAM

Certified by:

CHOI TZE WING
C.Eng., MHKIE MICE
Laboratory Engineer

Form No. CON 181_K_GS2006 T 4d (04/15/2007)

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation. This report shall not be reproduced unless with prior written approval from this laboratory.



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

Test Certificate

Measuring Abrasion Resistance of Precast, Unreinforced Concrete Paving Blocks
(Tested to BS 6717 : 2001 Annex F)

Date of issue: 17-11-2008

Page 1 of 1 page

Castco LRN: HC281112-2

Details as supplied by client

Client: Laputa Eco-Const. Material Co. Ltd.

Client's Ref. No.: --

Job Title: --

Contract No.: --

Sample Description: Paving Block

Type: --

Nominal Size (Length x Width x Thickness): 200 x 100 x 80 mm

Laboratory test results

Date sample received: 12-11-2008

Date of test: 14-11-2008

Specimen no.		1	2	3
Specimen size (Length x Width x Thickness)	(mm)	200 x 100 x 52	200 x 100 x 50	199 x 100 x 52
Maximum convex	(mm)	0.2 0.1	0.0 0.3	0.1 0.2
Maximum concave	(mm)	0.2 0.1	0.2 0.2	0.1 0.1
Max. convex after ground (if necessary)	(mm)	--	--	--
Max. concave after ground (if necessary)	(mm)	--	--	--
Width of groove	(mm)	70.3	70.3	70.4
Length of groove (L)	(mm)	16.0	16.8	15.6
Calibration factor (c)	(mm)	20.4		
Degree of abrasion	(mm)	15.5	16.5	15.0

Remark:

1. Test results relate only to the specimens tested.
2. Specimens were sawn to suitable thickness to fit the machine holder.

Checked by:

M. L. LAM

Certified by:

CHOI TZE WING
C. Eng., M.H.K.E., M.C.E.
Quality Manager



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

Test Certificate:
Unpolished Skid Resistance Value (USRV) of Concrete Paving Blocks
(Tested to BS 6717 : 2001 Annex G)

Date of issue : 17-11-2008

Page 1 of 1 page

Castco LRN : HC281112-1

Details as supplied by client

Client : Laputa Eco-Const. Material Co. Ltd.

Client's Ref. No. : -

Job Title : -

Contract No. : -

Sample Description : Paving Block

Type : -

Nominal Size (Length x Width x Thickness) : 200 x 100 x 80 mm

Laboratory test results

Date sample received : 12-11-2008

Date of test : 13-11-2008

Ambient temp. : 23 °C

Specimen no.	Recorded individual readings at 0°					Mean of last three readings	Recorded individual readings at 180°					Mean of last three readings	Unpolished skid resistance value
1	73	71	72	72	72	72	70	70	68	69	68	68	70
2	70	70	70	70	69	70	68	66	68	66	67	67	69
3	68	66	67	68	67	67	69	70	71	69	68	69	68
Average unpolished skid resistance value													69

Remarks :

1. Test results relate only to the specimens tested.

Checked by :

M. L. LAM

Certified by :

CHOI TZE WING
C. Eng., MBE, MICE
Quality Manager

Form No. R&D USRV_T4J (5/11/06)



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.



香港粉嶺安居街33號 33, On Kui Street, Fanling, Hong Kong. Tel: 2677 2138
香港粉嶺安全街29A號 29A, On Chuen Street, Fanling, Hong Kong. Fax: 2677 0351
E-mail: castco@netvigator.com Website: www.castco.com.hk

Test Certificate

Determination of Water Absorption Properties of Masonry Units and Segmental Pavers
(AS/NZS 4456.14 : 1997)

Date of issue: 25-10-2007

Page 1 of 1 page

Castco LRN: HC271016-2

Details as supplied by client

Client: Laputa Eco-Const. Material Co. Ltd.

Client's Ref. No.: --

Contract No.: --

Job Title: --

Sample type: Precast Concrete Paving Block

Date Cast: --

Sample Size: 200 mm x 100 mm x 80 mm

Source: --

Location of Sampling: --

Date of Sampling: --

Laboratory Test Result

Date Received: 16-10-2007

Date Tested: 20-10-2007

Specimen no.	1	2	3	4	5	6	7	8	9	10
Cold water immersion water absorption (%)	5.2	5.1	5.3	5.3	5.1	5.2	5.1	5.2	5.0	5.3
Average cold water immersion water absorption (%)	5.2									
Boiling water absorption (%)										
Average boiling water absorption (%)										

Remark:

1. Test result relate to the specimen tested only.
2. Only cold water immersion test was performed on test specimens as requested by client.

Checked by:

M. L. LAM

Certified by:

CHOI TZE WING
C.Eng., MHKIE MICB
Laboratory Engineer

Form No. H_CDN AS4456_T1 dt 27/06/2002



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

香港粉嶺安居街33號 33, On Kul Street, Fanling, Hong Kong. Tel: 2677 2138
香港粉嶺安全街29A號 29A, On Chuen Street, Fanling, Hong Kong. Fax: 2677 0351
E-mail: castco@netvigator.com Website: www.castco.com.hk



HOKLAS 032

Test Certificate

Compressive Strength of Precast Concrete Paving Blocks
(Based on BS6717 : Part 1 : 1993, Cl. 11, Appendix A & B)

Date of issue: 26-09-2008

Page 1 of 1 page

Castco LRN: HC280923-1

Details as supplied by client

Client: Laputa Eco - Const. Material Co. Ltd.

Job Title: --

Sample Description / Size : 200 x 100 x 80 mm Precast Concrete Paving Block

Date cast: --

Client's Ref. No.: --

Contract No.: --

Shape: R Block

Type: Chamfered

Laboratory Test Result

Date Received: 23-09-2008

Date Tested : 25-09-2008

Specimen No.	Measured Dimension			Squareness Maximum discrepancy (mm)	Chamfer		Plan Area (mm ²)	Maximum Load (kN)	Crushing Strength (MPa)	Compressive Strength (MPa)
	Length Mean (mm)	Width Mean (mm)	Thickness Mean (mm)		Maximum width (mm)	Maximum depth (mm)				
1	200	100	78	0.6	5	3	20000	1313	77.5	85.7
2	200	100	79	0.5	5	3	20000	1436	84.7	
3	200	100	80	0.6	5	3	20000	1418	83.7	
4	200	100	79	0.5	5	3	20000	1282	75.6	
5	200	100	78	0.6	5	3	20000	1520	89.7	
6	200	100	79	0.5	5	3	20000	1334	78.7	
7	200	100	79	0.7	5	3	20000	1599	94.3	
8	200	100	78	0.5	5	3	20000	1251	73.8	
9	200	100	79	0.6	5	3	20000	1589	93.8	
10	200	100	78	0.6	5	3	20000	1539	90.8	
11	200	100	79	0.6	5	3	20000	1548	91.3	
12	200	100	79	0.6	5	3	20000	1354	79.9	
13	200	100	78	0.7	5	3	20000	1431	84.4	
14	200	100	79	0.6	5	3	20000	1464	86.4	
15	200	100	79	0.7	5	3	20000	1613	95.2	
16	200	100	78	0.4	5	3	20000	1559	92.0	

- Remark:
1. Test result relates only to the specimen tested.
 2. Chamfered block correction factor = 1.18.
 3. Test result meets the requirement of BS6717 : Part 1 : 1993 Clause 10 & Clause 11.1.
 4. Compliance of the test results to the specification is an opinion of the laboratory and is not covered under the HOKLAS accreditation.

Checker: M. L. LAM

Certified by: CHOI TZE WING

CHOI TZE WING
C. Eng., M.HKIE, MICE
Quality Manager

Form No. CON PAV_201' dd 05/01/2002

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation. This report shall not be reproduced unless with prior written approval from this laboratory.