

To: United Brick & Tile
Division of Sioux City Brick & Tile Company
Attn: Kurt Hanson
PO Box 160
Adel, IA 50003

Date: June 16, 2008
Project: 3896802
Report No.: 3896802.1 rev2
Revised: July 7, 2008, July 14, 2008

Revision: Addition to "Marked" Section, Addition of Color

REPORT OF TESTS ON: 2008 General Testing
SUBMITTED BY: _____
MARKED: Smoked Tudor Modular – Flashed Modular Group
SAMPLED: _____
DATE RECEIVED: 06/02/2008
DATE TESTED: 06/04/2008 BY: MJ

The following brick have been selected for testing:

Flashed Modular Group:	Amherst*	(CSW) Bradford	Brookfield	Brownstone Antique 1
	Burgundy Tudor	Cabernet Burgundy	Cambridge*	(CSW) Cambridge
	Chelsea Ironspot	Countryside	Earth Blend	(CSW) Hampton
	Lexington	(CSW) Old Heritage	(W) Old Plantation	(CSW) Parkridge
	Redstone Antique 1	Rutile*	Smoked Tudor	(W) Smoky Mountain
	(CSW) Stratford	Sunset Blend	Swiss Chalet 1	(CSW) Tudor
	(CSW) Wellington	(W) Westport	Yellowstone	

* denotes various textures

1 indicates HBS

(CSW) – Charleston (HBA), Savannah (HBS), & Williamsburg (HBA) Textures

The above specimen was tested in accordance with Standard Methods of Testing Brick, ASTM C67-07a, for compliance with ASTM C-216-07a.

Compressive Strength:

Sample No.	Width, In.	Depth, In.	Gross Area, sq.in.	Gross Load, Lbs.	Compressive Strength	
					PSI	Mpa
11	3.67	7.62	27.97	344100	12300	84.8
12	3.65	7.62	27.81	345000	12400	85.5
13	3.67	7.59	27.86	396800	14540	98.2
14	3.64	7.67	27.92	402200	14410	99.3
15	3.63	7.69	27.91	338200	12120	83.5
Average	---	---	---	---	13100	90.3

Absorption:

Sample No.	Cold Water Immersion 24 Hr. % Absorption	% Absorption, 5 Hr. Boiling	Saturation Coefficient
1	3.5	5.6	0.62
2	3.8	5.9	0.64
3	3.3	5.3	0.62
4	3.5	5.6	0.62
5	3.2	5.4	0.60
Average	3.5	5.6	0.62

ASTM Efflorescence Test:

Sample No.	Sample Rating
6	Not Effloresced
7	Not Effloresced
8	Not Effloresced
9	Not Effloresced
10	Not Effloresced
Average	Not Effloresced

Initial Rate of Absorption (Suction):

Sample No.	Initial Rate of Absorption (Suction) Gain in Weight (gms) Corrected to Basis of 30 Sq. In. Flatwise Area (193.55 CM ²)
1	5.0
2	6.1
3	5.3
4	5.7
5	5.2
Average Open Area: 6.69 In. ² / (43.13 CM ²) – 24.1% of Gross Area	

Length:

Sample No.	Average Length		Deviation From Group Average	
	Inches	MM	Inches	MM
1	7.64	193.98	0.00	-0.11
2	7.68	195.13	0.04	1.04
3	7.64	194.15	0.00	0.06
4	7.65	194.20	0.00	0.11
5	7.61	193.25	-0.03	-0.84
11	7.62	193.63	-0.02	-0.46
12	7.62	193.65	-0.02	-0.44
13	7.59	192.85	-0.05	-1.24
14	7.67	194.83	0.03	0.73
15	7.69	195.25	0.05	1.16
Group Average	7.64	194.09	---	---

Width:

Sample No.	Average Width		Deviation From Group Average	
	Inches	MM	Inches	MM
1	3.64	92.53	0.00	-0.08
2	3.63	92.33	-0.01	-0.28
3	3.63	92.18	-0.02	-0.43
4	3.62	92.05	-0.02	-0.55
5	3.67	93.25	0.03	0.65
11	3.66	93.08	0.02	0.47
12	3.65	92.75	0.01	0.15
13	3.67	93.10	0.02	0.50
14	3.64	92.53	0.00	-0.08
15	3.63	92.25	-0.01	-0.35
Group Average	3.65	92.60	---	---

Height:

Sample No.	Average Height		Deviation From Group Average	
	Inches	MM	Inches	MM
1	2.28	57.88	0.00	-0.08
2	2.29	58.05	0.00	0.09
3	2.28	57.98	0.00	0.02
4	2.29	58.20	0.01	0.25
5	2.27	57.68	-0.01	-0.28
11	2.27	57.78	-0.01	-0.18
12	2.28	57.95	0.00	0.00
13	2.27	57.58	-0.01	-0.38
14	2.30	58.35	0.02	0.40
15	2.29	58.13	0.01	0.17
Group Average	2.28	57.96	---	---

Distortion (Warpage):

Sample No.	Maximum Distortion	
	Inches	MM
1	0.06	1.59
2	0.03	0.79
3	0.03	0.79
4	0.03	0.79
5	0.06	1.59
11	0.06	1.59
12	0.03	0.79
13	0.03	0.79
14	0.06	1.59
15	0.03	0.79

Out of Square:

Sample No.	Inches	MM
1	0.03	0.79
2	0.03	0.79
3	0.03	0.79
4	0.03	0.79
5	0.03	0.79
11	0.02	0.40
12	0.03	0.79
13	0.02	0.40
14	0.03	0.79
15	0.02	0.40

The above brick **comply** with the physical test requirements of ASTM C216-07a, Type FBX / Grade SW.

Respectfully submitted,
STORK Twin City Testing,

MJ:lam
1 pc above

Michael D. Jordt
Senior Engineering Technician