

EAR PROTECTED DATA

3922 Delaware Avenue, Des Moines, IA 50313-2542
(515) 266-5101, Fax (515) 262-1910

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

Project: TCT005939P
Date: March 23, 2011
Report #: TCT005939P.5 rev3
Revision Date: June 8, 2011
Revision: Edited that a 1 by group indicated HBS, not FBS

Report of Tests on: Aztec White Builders Special
Submitted by: _____
Marked: _____
Sampled: _____
Date Received: 2/28/2011
Date Tested: 3/1/2011 to 3/21/2011 By: MJ

The specimens tested are representative of the following group:

Builders Special	Amherst*	Antique White 1	Aztec White 1	(CSW) Birchwood	Brookfield	(CSW) Bradford
	Brown* 1	Brown Ironspot* 1	Brownstone Antique 1	Burgundy Tudor 1	Cabernet Burgundy 1	Cambridge* 1
	(CSW) Cambridge	Canterbury*	Casablanca 1	Chelsea Ironspot 1	Cinnamon Ironspot* 1	(W) Flint Hills
	(CSW) Hampton	Herthside* 1	Hematite 1	(W) Inca Gold 1	Lexington 1	Mesaba* 1
	(W) Misty Creek	Mocha* 1	(CSW) Old Heritage	(W) Old Plantation	Parkridge 1	(CSW) Parkridge
	Pink Aztec 1	Red* 1	Red Ironspot* 1	Red Desert 1	Red Rock*	Red Sand 1
	Redstone Antique 1	Royal Burgundy 1	(CSW) Sand Hills Red		Smoked Tudor 1	(W) Smoky Mountain
	(CSW) Stone Ridge	(CSW) Stratford	(CSW) Tudor	(CSW) Wellington	Welsford Ironspot 1	(W) Westport
	(W) Wexford	(W) Willow Creek	Winter Rose 1	Yellowstone* 1		

* 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 C216-07a.

Compressive Strength

Sample No.	Width, In.	Depth, In.	Gross Area, sq in.	Gross Load, Lbs.	Compressive Strength	
					PSI	MPa
11	3.03	4.83	14.63	189,700	12960	89.36
12	3.08	4.81	14.81	194,300	13120	90.46
13	3.07	4.85	14.89	134,800	9050	62.40
14	3.06	4.84	14.81	101,400	6850	47.23
15	3.07	4.79	14.71	115,200	7830	53.99
Average	n/a	n/a	n/a	n/a	9960	68.69

Absorption

Sample No.	Cold Water Immersion 24 Hr % Absorption	% Absorption, 5 Hour Boiling	Saturation Coefficient
1	2.2	2.6	0.85
2	3.5	4.3	0.81
3	3.5	4.1	0.85
4	3.0	3.5	0.86
5	3.4	4.4	0.77
Average	3.1	3.8	0.83

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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 sq. cm)
1	4.1
2	6.9
3	6.7
4	5.2
5	7.4
Average Open Area: sq. in (sq. cm)	
7.54 (48.65)	
Percent of Gross Area:	
28.38%	

Length

Sample No.	Average Length		Deviation from Group Ave.	
	Inches	mm	Inches	mm
1	8.68	220.47	0.01	0.25
2	8.68	220.47	0.01	0.25
3	8.68	220.47	0.01	0.25
4	8.67	220.22	0.00	0.00
5	8.65	219.71	(0.02)	(0.51)
6	8.68	220.47	0.01	0.25
7	8.69	220.73	0.02	0.51
8	8.65	219.71	(0.02)	(0.51)
9	8.66	219.96	(0.01)	(0.25)
10	8.66	219.96	(0.01)	(0.25)
Group Ave	8.67	220.22	n/a	n/a

Width

Sample No.	Average Width		Deviation from Group Ave.	
	Inches	mm	Inches	mm
1	3.03	76.96	(0.03)	(0.64)
2	3.08	78.23	0.02	0.64
3	3.07	77.98	0.01	0.38
4	3.06	77.72	0.00	0.13
5	3.07	77.98	0.01	0.38
6	3.04	77.22	(0.02)	(0.38)
7	3.05	77.47	(0.01)	(0.13)
8	3.05	77.47	(0.01)	(0.13)
9	3.03	76.96	(0.03)	(0.64)
10	3.07	77.98	0.01	0.38
Group Ave	3.06	77.60	n/a	n/a

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Height

Sample No.	Average Height		Deviation from Group Ave.	
	Inches	mm	Inches	mm
1	2.81	71.37	0.02	0.53
2	2.78	70.61	(0.01)	(0.23)
3	2.78	70.61	(0.01)	(0.23)
4	2.80	71.12	0.01	0.28
5	2.77	70.36	(0.02)	(0.48)
6	2.81	71.37	0.02	0.53
7	2.78	70.61	(0.01)	(0.23)
8	2.78	70.61	(0.01)	(0.23)
9	2.80	71.12	0.01	0.28
10	2.78	70.61	(0.01)	(0.23)
Group Ave	2.79	70.84	n/a	n/a

Distortion (Warpage)

Sample No.	Maximum Distortion	
	Inches	mm
1	0.06	1.59
2	0.03	0.79
3	0.06	1.59
4	0.03	0.79
5	0.06	1.59
6	0.06	1.59
7	0.06	1.59
8	0.06	1.59
9	0.06	1.59
10	0.03	0.79

Out of Square

Sample No.	Inches	mm
1	0.06	1.59
2	0.03	0.79
3	0.06	1.59
4	0.03	0.79
5	0.06	1.59
6	0.03	0.79
7	0.03	0.79
8	0.09	2.38
9	0.06	1.59
10	0.03	0.79

The above brick **comply** with the physical test requirements of ASTM C652, Type HBS / SW.

Respectfully submitted,
STORK Twin City Testing Corporation

MJ:lam
1 pc above



Michael D. Jordt
Senior Engineering Technician