

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.4 rev3
Revision Date: June 8, 2011
Revision: Removed FBS indicator,
Corrected name below

Report of Tests on: Cranberry Colonial 12" Utility
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:

Utility	Amherst*	(CS) Birchwood	Black Sand	Bordeaux Burgundy	Brookfield	Brown*
	Brown Ironspot*	Brown Frosty	Burgundy Tudor	Cabernet Burgundy	Cambridge*	(CS) Cambridge
	Canterbury*	Chelsea Ironspot	Cinnamon Ironspot*	Concord	Copper Ridge*	Cordovan*
	Cordovan Ironspot*	Cranberry*	Cranberry Ironspot*	Earth Blend	Granite Red*	Granite Red Ironspot*
	(CS) Hampton	Hearthside	Hematite	Inca Gold	Lexington	Mesaba*
	Misty Creek	Mocha*	Napa Valley*	Napa Valley Ironspot*	(CS) Old Heritage	Parkridge*
	(CS) Parkridge	Providence	Plum*	Plum Ironspot*	Red*	Red Ironspot*
	Red Desert	Red Frosty	Red Rock*	Red Sand	Royal Burgundy	(CS) Sand Hills Red
	Sandy Mocha	Scarlet Sands	Smoked Tudor	Sonoma Valley*	Sonoma Valley Ironspot*	
	(CS) Stratford	Sunset Blend	Swiss Chalet	(CS) Tudor	(CS) Wellington	Welsford Ironspot
	Yellowstone*					

* denotes various textures

(CS) Charleston (FBA) & Savannah (FBX) 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	3.70	5.81	21.50	220,400	10250	70.67
12	3.70	5.76	21.31	211,000	9900	68.26
13	3.69	5.65	20.85	274,000	13140	90.60
14	3.69	5.70	21.03	212,100	10080	69.50
15	3.69	5.70	21.03	216,700	10300	71.02
Average	n/a	n/a	n/a	n/a	10740	74.01

Absorption

Sample No.	Cold Water Immersion 24 Hr % Absorption	% Absorption, 5 Hour Boiling	Saturation Coefficient
1	3.3	5.6	0.59
2	3.5	5.9	0.59
3	3.3	5.7	0.58
4	3.5	5.9	0.59
5	3.2	5.6	0.57
Average	3.4	5.7	0.59

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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	6.1
3	6.6
4	6.5
5	5.9
Average Open Area: sq. in (sq. cm)	
10.58 (68.26)	
Percent of Gross Area:	
24.54%	

Length

Sample No.	Average Length		Deviation from Group Ave.	
	Inches	mm	Inches	mm
1	11.67	296.42	(0.01)	(0.28)
2	11.68	296.67	(0.00)	(0.03)
3	11.64	295.66	(0.04)	(1.04)
4	11.69	296.93	0.01	0.23
5	11.68	296.67	(0.00)	(0.03)
6	11.69	296.93	0.01	0.23
7	11.72	297.69	0.04	0.99
8	11.65	295.91	(0.03)	(0.79)
9	11.70	297.18	0.02	0.48
10	11.69	296.93	0.01	0.23
Group Ave	11.68	296.70	n/a	n/a

Width

Sample No.	Average Width		Deviation from Group Ave.	
	Inches	mm	Inches	mm
1	3.70	93.98	0.01	0.36
2	3.70	93.98	0.01	0.36
3	3.69	93.73	0.00	0.10
4	3.69	93.73	0.00	0.10
5	3.69	93.73	0.00	0.10
6	3.68	93.47	(0.01)	(0.15)
7	3.64	92.46	(0.05)	(1.17)
8	3.73	94.74	0.04	1.12
9	3.66	92.96	(0.03)	(0.66)
10	3.68	93.47	(0.01)	(0.15)
Group Ave	3.69	93.62	n/a	n/a

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Height

Sample No.	Average Height		Deviation from Group Ave.	
	Inches	mm	Inches	mm
1	3.68	93.47	0.00	0.13
2	3.68	93.47	0.00	0.13
3	3.67	93.22	(0.01)	(0.13)
4	3.68	93.47	0.00	0.13
5	3.67	93.22	(0.01)	(0.13)
6	3.68	93.47	0.00	0.13
7	3.67	93.22	(0.01)	(0.13)
8	3.66	92.96	(0.02)	(0.38)
9	3.68	93.47	0.00	0.13
10	3.68	93.47	0.00	0.13
Group Ave	3.68	93.35	n/a	n/a

Distortion (Warpage)

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

Out of Square

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

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

Respectfully submitted,
STORK Twin City Testing Corporation

MJ:lam
1 pc above

Michael D. Jordt
Senior Engineering Technician