

Results of Tests on Brick conducted in accordance with ASTM C67-11 Standard Method for Sampling and

Testing Brick and Structural Clay Tile

06/21/2012

Name:	The Belden Brick Company 700 West Tuscarawas Street Canton, OH 44702	Plant:	The Belden Brick Company
Phone:	330-456-0031	Report Number:	BBC 0227
Fax:	330-456-2694	Sampled Date:	05/18/2012
		Lot:	
		Product Code:	702005599

Sample Description: **Pit 2, All Shale (Paver, 2-1/4)**

						Average	Test Date
Absorption	1	2	3	4	5		
24 Hour Submersion in Cold Water (%)	1.03	0.82	1.22	0.93	1.12	1.02	05/31/2012
5 Hour Submersion in Boiling Water (%)	1.20	1.01	1.54	1.06	1.55	1.27	
Saturation Coefficient (Ratio of 24H to 5H)	0.86	0.81	0.79	0.87	0.72	0.81	
Compressive Strength	1	2	3	4	5	Average	
<i>psi</i>	23,318	21,184	19,307	23,136	23,132	22,015	05/31/2012
<i>MPa</i>	160.8	146.1	133.1	159.5	159.5	151.8	
Breaking Load	6	7	8	9	10	Average	
<i>(lb/in.)</i>	1,510	1,524	1,316	1,441	1,393	1,437	06/15/2012
Efflorescence	11	12	13	14	15		
	Not Effloresced	Not Effloresced	Not Effloresced	Not Effloresced	Not Effloresced		06/19/2012
Abrasion Resistance	1	2	3	4	5	Average	
	0.00	0.00	0.01	0.00	0.00	0.00	06/19/2012

The brick represented by the test results shown here comply with the standards listed below:


ASTM C 1272 - 11 Standard Specification for Heavy Vehicular Paving Brick

Type:

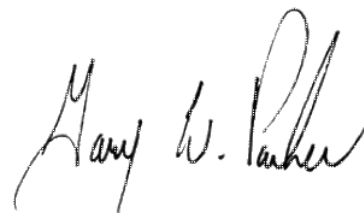
ASTM C 902 - 10 Standard Specification for Pedestrian and Light Traffic Paving Brick

Class: SX, MX, NX, with absorption alternate in section 4.1.1.1

Type: I, II, III



John Sanders, Ph.D., PE, Director



Gary W. Parker, Laboratory Supervisor

Results of Tests on Brick conducted in accordance with ASTM C67-09 Standard Method for Sampling and

Testing Brick and Structural Clay Tile

07/15/2011

Name:	The Belden Brick Company 700 West Tuscarawas Street Canton, OH 44702	Plant:	The Belden Brick Company
Phone:	330-456-0031	Report Number:	BBC-0173
Fax:	330-456-2694	Sampled Date:	06/21/2011
		Lot:	
		Product Code:	

Sample Description: **Plant 2, All Shale Paver 2 3/4"**

						Average	Test Date	
Absorption	1	2	3	4	5			
24 Hour Submersion in Cold Water (%)	1.78	1.23	1.29	1.82	1.19	1.46	07/07/2011	
5 Hour Submersion in Boiling Water (%)	2.31	2.14	2.67	2.16	1.89	2.23		
Saturation Coefficient (Ratio of 24H to 5H)	0.77	0.57	0.49	0.84	0.63	0.66		
Compressive Strength	1	2	3	4	5	Average		
	psi	psi	psi	psi	psi	psi	06/29/2011	
	2,681	3,274	2,054	2,193	3,349	2,711		
	MPa	N156.4	>160.5	>152.1	>153.0	>161.0	>156.6	
Breaking Load	6	7	8	9	10	Average		
	(lb/in.)	2,452	2,205	2,465	2,235	2,374	2,346	06/30/2011
Efflorescence	11	12	13	14	15			
	Not Effloresced	Not Effloresced	Not Effloresced	Not Effloresced	Not Effloresced		07/13/2011	
IRA	6	7	8	9	10	Average		
	g/min	2.0	2.3	2.2	2.2	2.1	2.2	06/30/2011
Abrasion Resistance	1	2	3	4	5	Average		
		0.01	0.01	0.01	0.01	0.01	0.01	06/30/2011

The brick represented by the test results shown here comply with the standards listed below:

ASTM C 1272 - 10 Standard Specification for Heavy Vehicular Paving Brick

Type: R, F

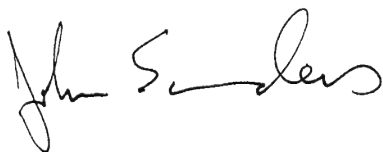
ASTM C 902 - 10 Standard Specification for Pedestrian and Light Traffic Paving Brick

Class: SX, MX, NX, with absorption alternate in section 4.1.1.1

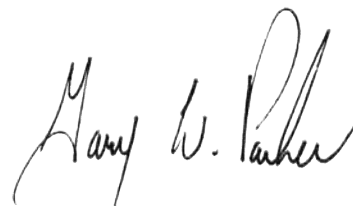
Type: I, II, III

NOTES

-*Compressive strength load values exceeded maximum capacity of the strength machine.



John Sanders, Ph.D., PE, Associate Director for Operations



Gary W. Parker, Laboratory Supervisor

THE NATIONAL BRICK RESEARCH CENTER

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Anderson, SC 29625
(864)656-1095



Results of Tests on Brick conducted in accordance with ASTM C67-07 Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale)



07/21/2008

COMPANY INFORMATION	
Name:	The Belden Brick Company P. O. Box 430 475 Dover Road, NW Sugarcreek, OH 44681
Plant:	The Belden Brick Company
Sample:	Plant 8 - Shale and Fireclay, No Additives, Fine Grind (70% Shale / 30% Fireclay)
Report #:	BBC-0040
Lot:	Product Code:

	11	12	13	14	15	Average	Test Date
Absorption							
24 Hour Submersion in Cold Water (%)	3.33	3.03	3.40	2.65	2.65	3.01	07/08/2008
5 Hour Submersion in Boiling Water (%)	3.99	3.75	4.08	3.41	3.18	3.69	
Saturation Coefficient (Ratio of 24 H to 5 H)	0.83	0.81	0.83	0.78	0.83	0.82	
Compressive Strength							
psi	15,240	17,535	17,725	11,856	16,942	15,859	07/08/2008
MPa	105.1	120.9	122.2	81.7	116.8	109	
Efflorescence							
	Not effloresced	Not effloresced	Not effloresced	Not effloresced	Not effloresced		07/16/2008
IRA							
g/min	5.55	5.71	6.27	5.77	5.06	5.67	07/10/2008

The brick represented by the test results shown here comply with the standards listed below:
 ASTM C 216 - 07 Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale)
 Grade: SW, MW with absorption alternate in section 6.1.2
 Type: FBS

CERTIFICATION	
 Denis Brosnan, Director	 Jim Frederic, Associate Director