

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

Testing Brick and Structural Clay Tile

11/13/2012

| | | | |
|--------|--|----------------|--------------------------|
| Name: | The Belden Brick Company 700 West Tuscarawas Street Canton, OH 44702 | Plant: | The Belden Brick Company |
| Phone: | 330-456-0031 | Report Number: | BBC 0191 (Thin Brick) |
| Fax: | 330-456-2694 | Sampled Date: | 05/16/2012 |
| | | Lot: | |
| | | Product Code: | |

Sample Description: **Plt 4, All Shale Coarse Grind (No Additive) (Thin Brick)**

| | | | | | | Average | Test Date |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|---------|------------|
| Absorption | 1 | 2 | 3 | 4 | 5 | | |
| 24 Hour Submersion in Cold Water (%) | 2.49 | 3.75 | 2.61 | 4.40 | 1.39 | 2.93 | 05/31/2012 |
| 5 Hour Submersion in Boiling Water (%) | 3.91 | 5.28 | 4.08 | 6.41 | 3.19 | 4.57 | |
| Saturation Coefficient (Ratio of 24H to 5H) | 0.64 | 0.71 | 0.64 | 0.69 | 0.44 | 0.62 | |
| Compressive Strength | 1 | 2 | 3 | 4 | 5 | Average | |
| <i>psi</i> | 15,943 | 16,314 | 16,942 | 15,711 | 16,721 | 16,326 | 05/31/2012 |
| <i>MPa</i> | 109.9 | 112.5 | 116.8 | 108.3 | 115.3 | 112.6 | |
| Efflorescence | 11 | 12 | 13 | 14 | 15 | | |
| | Not Effloresced | Not Effloresced | Not Effloresced | Not Effloresced | Not Effloresced | | 07/05/2012 |
| IRA | 6 | 7 | 8 | 9 | 10 | Average | |
| <i>g/min/30 in.²</i> | 5.7 | 5.6 | 5.8 | 5.0 | 4.7 | 5.4 | 06/18/2012 |
| Average % Void | 16.4 | | | | | | 06/18/2012 |

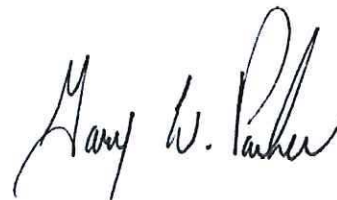
The brick represented by the test results shown here comply with the standards listed below:

ASTM C 1088 - 11 Standard Specification for thin Veneer brick Units Made From Clay or Shale

Grade: Exterior, Interior



John Sanders, Ph.D., PE, Director



Gary W. Parker, Laboratory Supervisor