



TEST REPORT

100 Clemson Research Blvd.
Anderson, SC 29625
(864) 656-1094
Fax: (864) 656-1095
www.brickandtile.org

Results of Tests on Brick conducted in accordance with ASTM C67-14 Standard Method for Sampling and Testing

Brick and Structural Clay Tile

11/13/2016

| | | | | |
|--------|--|----------------|------------|------------------------|
| Name: | Glen-Gery Corporation 433 S. Pottsville Pike Shoemakersville, PA 19555 | Plant: | York | *Temperature: 60 - 90F |
| Phone: | 610-562-3076 | Report Number: | GGYK-1507 | *Humidity: 30% - 70% |
| Fax: | 610-562-2084 | Received Date: | 09/09/2016 | |
| | | Sampled Date: | 08/19/2016 | |
| | | Lot: | 08615YA | |
| | | Product Code: | 71002300 | |

Sample Description: **York Shale Handmade**

| | | | | | | Average | Test Date |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|------------|
| Absorption | 1 | 2 | 3 | 4 | 5 | | |
| 24 Hour Submersion in Cold Water (%) | 4.66 | 4.85 | 5.47 | 4.89 | 5.72 | 5.12 | 10/10/2016 |
| 5 Hour Submersion in Boiling Water (%) | 9.21 | 9.37 | 10.16 | 9.55 | 10.47 | 9.75 | |
| Saturation Coefficient (Ratio of 24H to 5H) | 0.51 | 0.52 | 0.54 | 0.51 | 0.55 | 0.52 | |
| Compressive Strength | 1 | 2 | 3 | 4 | 5 | Average | |
| <i>psi</i> | 12,208 | 11,355 | 10,020 | 10,184 | 11,538 | 11,061 | 10/10/2016 |
| <i>MPa</i> | 84.2 | 78.3 | 69.1 | 70.2 | 79.5 | 76.3 | |
| Efflorescence | 11 | 12 | 13 | 14 | 15 | | |
| | Not Effloresced | Not Effloresced | Not Effloresced | Not Effloresced | Not Effloresced | | 09/26/2016 |
| IRA (Oven Dried Method) | 6 | 7 | 8 | 9 | 10 | Average | |
| <i>g/min/30 in.²</i> | 20.8 | 15.8 | 19.6 | 26.9 | 21.7 | 20.9 | 10/06/2016 |

The brick represented by the test results shown here comply with the physical property requirements of the standards listed below:

ASTM C 216 - 16 Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale)
Grade: SW, MW

ASTM C 32 - 13 Standard Specification for Sewer and Manhole Brick (Made From Clay or Shale)
Grade: SM, / MM, MS

ASTM C 62 - 13a Standard Specification for Building Brick (Solid Masonry Units Made From Clay or Shale)
Grade: SW, MW, NW

CAN/CSA-A82-06 Fired masonry brick made from clay or shale
Grade: IG, EG

Michael Walker, Quality Manager

**The temperature and humidity of the Bishop Materials Laboratory is constantly kept between 60 -90F, and 30-70% RH
The results shown above apply only to the samples tested, which are provided by the customer.
This test report shall not be reproduced except in full, without written approval of the laboratory.*