THE BISHOP MATERIALS LABORATORY

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 C 67-16 Standard Test Methods for Sampling and
Testing Brick and Structural Clay Tile
06/01/2017

| Name: | Glen-Gery Corporation | Plant: | Marseilles | *Temperature: 60-90F |
| :--- | :--- | :--- | :--- | :--- |
|  | PO Box 306 | Report Number: | GGMS-1390 | *Humidity: 30\%-70\% |
|  | Marseilles, IL 61341 | Received Date: | $04 / 28 / 2017$ |  |
| Phone: | $610-562-3076$ | Sampled Date: | $04 / 17 / 2017$ |  |
| Fax: | $610-562-2084$ | Lot: | Product Code: | 73606105 |

Sample Description: Marseilles Clay/Shale w/Additives Extruded - C652

|  |  |  |  |  |  |  | Test Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Absorption | 1 | 2 | 3 | 4 | 5 | Average |  |
| 24 Hour Submersion in Cold Water (\%) | 5.66 | 3.96 | 5.11 | 5.07 | 4.66 | 4.89 | 05/08/2017 |
| 5 Hour Submersion in Boiling Water (\%) | 7.03 | 4.84 | 6.09 | 5.78 | 5.02 | 5.75 |  |
| Saturation Coefficient (Ratio of 24 H to 5H) | 0.81 | 0.82 | 0.84 | 0.88 | 0.93 | 0.85 |  |
| Compressive Strength | 1 | 2 | 3 | 4 | 5 | Average |  |
| psi | 13,166 | 16,078 | 16,353 | 16,825 | 15,109 | 15,506 | 05/09/2017 |
| MPa | 90.8 | 110.9 | 112.7 | 116.0 | 104.2 | 106.9 |  |
| Average \% Void | 28.9 |  |  |  |  |  | 05/11/2017 |
| Efflorescence | 11 | 12 | 13 | 14 | 15 |  |  |
|  | Not Effloresced | Not Effloresced | Not Effloresced | Not Effloresced | Not Effloresced |  | 05/15/2017 |
| IRA (Oven Dried Method) | 6 | 7 | 8 | 9 | 10 | Average |  |
| $\mathrm{g} / \mathrm{min} / 30 \mathrm{in} .{ }^{2}$ | 5.7 | 5.6 | 6.3 | 6.1 | 5.0 | 5.7 | 05/11/2017 |

The brick represented by the test results shown here comply with the physical property requirements of the standards listed below:
ASTM C 32-13 Standard Specification for Sewer and Manhole Brick (Made From Clay or Shale)
Grade: SM, SS / MM, MS, with absorption alternate in Section 5.1
ASTM C 62-13a Standard Specification for Building Brick (Solid Masonry Units Made From Clay or Shale)
Grade: SW, MW, NW, with absorption alternate in section 5.1.2
ASTM C 652-15 Standard Specification for Hollow Brick (Hollow Masonry Units Made From Clay or Shale)
Grade: SW, MW, with absorption alternate in section 6.1.2
Class: H40V
CAN/CSA-A82-06 Fired masonry brick made from clay or shale
Grade: EG


Michael Walker, Quality Manager
*The temperature and humidity of the Bishop Materials Laboratory is constantly kept between $60-90 \mathrm{~F}$, 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.

