

## TEST REPORT

## THE BISHOP MATERIALS LABORATORY

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Results of Tests on Brick conducted in accordance with ASTM C67-12 Standard Method for Sampling and

|   |  |  |               | rick and Structural (   |   | ra metnoa for Sampling a |                      |            |
|---|--|--|---------------|-------------------------|---|--------------------------|----------------------|------------|
|   |  |  |               | 01/23/2014              |   |                          |                      |            |
| 1   | Whitacre-Greer Fi<br>1400 South Maho<br>Alliance , OH 4460 |  | Plant:        |                         | Whitacre-Greer<br>Fireproofing<br>Company | *Temperature: 70 - 77F   |                      |            |
| Phone: (                                    | (330) 206-2009   |  |               | Report Number:          |   | WGFC-0082                | *Humidity: 45% - 55% |            |
| Fax:  |  |  |               | Received                | Date:                                     | 01/06/2014               |                      |            |
|   |  |  |               | Sampled Date: 0<br>Lot: |   | 01/06/2014               |                      |            |
|   |  |  |               |                         |   |                          |                      |            |
|   |  |  | Product Code: |                         |   |                          |                      |            |
| Sample Description: 2                       | 2 1/4 x 9 3 Board  | walk Shade   | 41 Caribbea   | n                       |   |                          |                      |            |
|   |  |  |               |                         |   |                          |                      | Test Date  |
| Absorption                                  |  | 1  | 2             | 3                       | 4   | 5                        | Average              |            |
| 24 Hour Submersion in Cold Water (%)        |  | 4.43   | 5.36          | 5.19                    | 4.57                                      | 5.59                     | 5.03                 | 01/09/2014 |
| 5 Hour Submersion in Boiling Water (%)      |  | 5.72   | 6.89          | 6.72                    | 5.90                                      | 7.18                     | 6.48                 |            |
| Saturation Coefficient (Ratio of 24H to 5H) |  | 0.77   | 0.78          | 0.77                    | 0.77                                      | 0.78                     | 0.78                 |            |
| *Measurement Uncertainty ± 0.55 %           |  | *The 1 and 2 hour boiled water absorption tests are not required by the customer |               |                         |   |                          |                      |            |
| Compressive Strength                        |  | 1  | 2             | 3                       | 4   | 5                        | Average              |            |
|   | psi  | 8,377  | 7,558         | 8,101                   | 9,192                                     | 2 7,591                  | 8,164                | 01/10/2014 |
|   | MPa  | 57.8   | 52.1          | 55.9                    | 63.4                                      | 52.3                     | 56.3                 |            |
| *Measurement Uncertain                      | nty ± 231 psi  |  |               |                         |   |                          |                      |            |
| Breaking Load                               |  | 6  | 7             | 8                       | 9   | 10                       | Average              |            |
|   | (lb/in.)   | 2,527  | 1,011         | 2,332                   | 2,020                                     | ) 1,403                  | 1,859                | 01/16/2014 |
| Abrasion Resistance                         |  | 1  | 2             | 3                       | 4   | 5                        | Average              |            |
|   |  | 0.05   | 0.07          | 0.06                    | 0.05                                      | 0.07                     | 0.06                 | 01/16/2014 |

The brick represented by the test results shown here comply with the physical property requirements of the standards listed below: ASTM C 1272 - 11 Standard Specification for Heavy Vehicular Paving Brick Type: R

Sinder

John Sanders, Ph.D., PE, Director

and

Gary W. Parker, Laboratory Supervisor

\*This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2 \*The temperature and humidity of the Bishop Materials Laboratory is constantly kept between 70 -77F, and 45-55% The results shown above apply only to the samples tested, which are provided by the customer.

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