**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

05/16/2018

**Name:** The Belden Brick Company  
**Plant:** Sugarcreek  
**Report Number:** 8207-18725  
**Received Date:** 05/02/2018

**Phone:** 330-456-0031  
**Sampled Date:** 05/02/2018

**Fax:** 330-456-2694  
**Lot:**

**Sample Description:** PLT 2, ALL SHALE W/ADDITIVE (PAVER, 2-1/4"

**Test Date**

<table>
<thead>
<tr>
<th>Test Date</th>
<th>Test</th>
<th>Absorption</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/07/2018</td>
<td>24 Hour Submersion in Cold Water (%)</td>
<td>0.18</td>
<td>0.29</td>
<td>0.30</td>
<td>0.31</td>
<td>0.29</td>
<td>0.27</td>
<td></td>
</tr>
<tr>
<td>05/07/2018</td>
<td>5 Hour Submersion in Boiling Water (%)</td>
<td>0.28</td>
<td>0.41</td>
<td>0.43</td>
<td>0.41</td>
<td>0.41</td>
<td>0.39</td>
<td></td>
</tr>
<tr>
<td>05/07/2018</td>
<td>Saturation Coefficient (Ratio of 24H to 5H)</td>
<td>0.63</td>
<td>0.69</td>
<td>0.70</td>
<td>0.77</td>
<td>0.71</td>
<td>0.70</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Date</th>
<th>Test</th>
<th>Compressive Strength</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Average</th>
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</thead>
<tbody>
<tr>
<td>05/14/2018</td>
<td>psi</td>
<td>22,089</td>
<td>30,242</td>
<td>29,198</td>
<td>21,240</td>
<td>28,621</td>
<td>26,278</td>
<td></td>
</tr>
<tr>
<td>05/14/2018</td>
<td>MPa</td>
<td>152.3</td>
<td>208.5</td>
<td>201.3</td>
<td>146.4</td>
<td>197.3</td>
<td>181.2</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Date</th>
<th>Test</th>
<th>Breaking Load</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/07/2018</td>
<td>(lb/in.)</td>
<td>1,374</td>
<td>1,698</td>
<td>1,390</td>
<td>1,648</td>
<td>1,427</td>
<td>1,507</td>
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<table>
<thead>
<tr>
<th>Test Date</th>
<th>Test</th>
<th>Efflorescence</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/15/2018</td>
<td>Not Effloresced</td>
<td>Not Effloresced</td>
<td>Not Effloresced</td>
<td>Not Effloresced</td>
<td>Not Effloresced</td>
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</table>

<table>
<thead>
<tr>
<th>Test Date</th>
<th>Test</th>
<th>IRA (Oven Dried Method)</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/07/2018</td>
<td>g/min/30 in.²</td>
<td>2.1</td>
<td>2.0</td>
<td>2.1</td>
<td>2.2</td>
<td>2.1</td>
<td>2.1</td>
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<table>
<thead>
<tr>
<th>Test Date</th>
<th>Test</th>
<th>Abrasion Resistance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/07/2018</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

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

- **ASTM C 1272 - 17 Standard Specification for Heavy Vehicular Paving Brick**
  - Type: R

- **ASTM C 902 - 15 Standard Specification for Pedestrian and Light Traffic Paving Brick**
  - Class: SX, MX, NX
  - Type: I, II, III

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Michael Walker, Quality Manager

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*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.*