# ASTM C24 Pyrometric Cone Equivalent (PCE) of Fireclay and High Alumina Refractory Materials

**Date:** February 10, 2014  
**Material:** Refractory  
**Preparation:** Ground to -70 mesh  

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>PCE Value</th>
<th>Deformation Temperature (°F)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick - PHB01</td>
<td>17</td>
<td>2754</td>
<td></td>
</tr>
</tbody>
</table>
TEST REPORT
THE BISHOP MATERIALS LABORATORY
100 Clemson Research Blvd,
Anderson, SC 29625
(864) 556-1094
Fax: (864) 556-1095
www.bishopmaterials.com

Results of Tests on Brick conducted in accordance with ASTM C87-13 Standard Method for Sampling and
Testing Brick and Structural Clay Tile

03/20/2014

Name: Pine Hall Brick Company, Inc
10000 Fairmount Highway SE
Fairmount, GA 30139

Plant: Fairmount

*Temperature: 70 - 77F
*Humidity: 45% - 55%

Report Number:
Received Date: 03/12/2014

Sample Date: 03/12/2014
Lot:
Product Code:

Sample Description: **PHB Firebrick**

<table>
<thead>
<tr>
<th>Modulus of Rupture</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Average</th>
<th>Test Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>psi</strong></td>
<td>1,246</td>
<td>1,263</td>
<td>1,182</td>
<td>1,138</td>
<td>1,692</td>
<td>1,304</td>
<td>03/18/2014</td>
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<tr>
<td><strong>MPa</strong></td>
<td>8.6</td>
<td>8.7</td>
<td>8.2</td>
<td>7.8</td>
<td>11.7</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

John Sanders, Ph.D., PE, Director
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.
This test report shall not be reproduced except in full, without written approval of the laboratory.

Lab Reference: 5551.10147