



**TEST REPORT**

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*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 South Pottsville Pike Shoemakersville, PA 19555	Plant:	Redfield	*Temperature: 60 - 90F
Phone:	610-562-3076	Report Number:	GGRF-0562	*Humidity: 30% - 70%
Fax:	610-562-2084	Received Date:	09/23/2016	
		Sampled Date:	08/29/2016	
		Lot:	08653DA	
		Product Code:	73405100	

Sample Description: **Redfield Shale w/Additives Extruded**

						Average	Test Date
<b>Absorption</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		
24 Hour Submersion in Cold Water (%)	3.39	2.14	2.31	2.01	3.87	2.75	10/12/2016
5 Hour Submersion in Boiling Water (%)	4.48	2.30	2.43	2.15	4.59	3.19	
Saturation Coefficient (Ratio of 24H to 5H)	0.76	0.93	0.95	0.94	0.84	0.88	
<b>Compressive Strength</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Average</b>	
<i>psi</i>	17,649	20,565	16,043	18,059	15,565	17,576	10/13/2016
<i>MPa</i>	121.7	141.8	110.6	124.5	107.3	121.2	
<b>Efflorescence</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>		
	Not Effloresced	Not Effloresced	Not Effloresced	Not Effloresced	Not Effloresced		10/24/2016
<b>IRA (Oven Dried Method)</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Average</b>	
<i>g/min/30 in.<sup>2</sup></i>	3.2	2.5	2.7	5.3	4.2	3.6	11/04/2016

**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, with absorption alternate in section 7.1.2

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

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 -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.*