



# Technical Data

## PATRIOT Burned Fireclay Brick

PHYSICAL PROPERTIES (ASTM procedures used where applicable)			<u>Std. Deviation ( <math>\sigma</math> )</u>
	Bulk Density: (lb/ft <sup>3</sup> ) :	<b>142</b>	<b>(2272 kg/m<sup>3</sup>)</b>
Modulus of Rupture: (lb/in <sup>2</sup> ) :	<b>1250</b>	<b>(8.6 MPa)</b>	<b>340 (2.3 MPa)</b>
Cold Crushing Strength: (lb/in <sup>2</sup> )	<b>5000</b>	<b>(34.5 MPa)</b>	<b>n/a</b>
Apparent Porosity, %:		<b>17.0%</b>	<b>1.5%</b>
Permanent Linear Change, % 2910°F (1600°C) & 5 Hours :		<b>-0.25 % to +0.5%</b>	<b>n/a</b>
Pyrometric Cone Equivalent (PCE) :		<b>32-1/2 to 33</b>	<b>n/a</b>
CHEMICAL ANALYSIS (Calcined Basis)	Alumina (Al <sub>2</sub> O <sub>3</sub> ) .....	<b>46.2</b>	
	Silica (SiO <sub>2</sub> ) .....	<b>48.1</b>	
	Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ) .....	<b>1.6</b>	
	Titania (TiO <sub>2</sub> ) .....	<b>2.3</b>	
	Lime (CaO) .....	<b>0.3</b>	
	Magnesia (MgO) .....	<b>0.3</b>	
	Phosphorus Pentoxide (P <sub>2</sub> O <sub>5</sub> ) .....	<b>0.3</b>	
	Alkalies .....	<b>0.9</b>	

The properties shown on this data sheet represent typical average results generated using standard ASTM test methods (unless otherwise noted) conducted under controlled condition (using standard rectangular shapes), and should not be considered to be guaranteed specifications. Properties are subject to normal manufacturing statistical standard deviation ranges, and Resco Products, Inc. reserves the right to modify the properties and specifications at any time without prior notice.

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