



# SUPER INSULATING BRICK

Effective: May 2018

			ISOLMOS 450	ISOLMOS 550	AW 500	AB-45	AB-50	AB-55	AB-60	AB-70
<b>Classification</b>	ISO 2245 : 2006		<b>85-L</b>	<b>85-L</b>	<b>85-L</b>	<b>90-L</b>	<b>90-L</b>	<b>95-L</b>	<b>100-L</b>	<b>100-L</b>
<b>Density</b>	ISO 5016 : 1997	Kg/m <sup>3</sup>	<b>425</b>	<b>500</b>	<b>500</b>	<b>450</b>	<b>500</b>	<b>550</b>	<b>600</b>	<b>700</b>
<b>Max. service temperature</b>		°C	<b>900</b>	<b>900</b>	<b>900</b>	<b>950</b>	<b>950</b>	<b>1000</b>	<b>1050</b>	<b>1050</b>
<b>Cold crushing strength</b>	ISO 8895 : 2006	MPa	<b>1,3</b>	<b>2,5</b>	<b>1,8</b>	<b>1,8</b>	<b>2,5</b>	<b>3,5</b>	<b>4,5</b>	<b>6,0</b>
<b>Linear Reheat Shrinkage</b> 12h soak @ Temperature (°C)	ISO 2477 : 2005	%	<b>&lt; 1.0</b> 850	<b>&lt; 1.0</b> 850	<b>&lt; 1.0</b> 850	<b>0,5</b> 900	<b>0,5</b> 900	<b>0,5</b> 950	<b>0,5</b> 1000	<b>0,5</b> 1000
<b>Thermal Conductivity</b> Mean Temperature 200°C 400°C 600°C	ASTM C 182-88:2009	W/m <sup>2</sup> K	<b>0,10</b> <b>0,12</b> <b>0,14</b>	<b>0,12</b> <b>0,14</b> <b>0,16</b>	<b>0,13</b> <b>0,15</b> <b>0,18</b>	<b>0,12</b> <b>0,14</b> <b>0,16</b>	<b>0,13</b> <b>0,15</b> <b>0,17</b>	<b>0,14</b> <b>0,16</b> <b>0,18</b>	<b>0,16</b> <b>0,18</b> <b>0,20</b>	<b>0,18</b> <b>0,20</b> <b>0,22</b>
<b>Chemical Analysis</b>	XRF	%								
SiO <sub>2</sub>			<b>65,0</b>	<b>65,0</b>	<b>67,5</b>	<b>64,5</b>	<b>64,5</b>	<b>64,0</b>	<b>63,4</b>	<b>62,7</b>
Al <sub>2</sub> O <sub>3</sub>			<b>15,0</b>	<b>15,0</b>	<b>22,5</b>	<b>17,3</b>	<b>17,5</b>	<b>17,6</b>	<b>18,0</b>	<b>18,5</b>
TiO <sub>2</sub>			<b>0,5</b>	<b>0,5</b>	<b>1,1</b>	<b>0,6</b>	<b>0,6</b>	<b>0,6</b>	<b>0,6</b>	<b>0,6</b>
Fe <sub>2</sub> O <sub>3</sub>			<b>3,5</b>	<b>3,5</b>	<b>2,0</b>	<b>3,3</b>	<b>3,1</b>	<b>3,5</b>	<b>3,5</b>	<b>3,5</b>
CaO			<b>7,5</b>	<b>7,5</b>	<b>0,9</b>	<b>5,5</b>	<b>5,9</b>	<b>5,9</b>	<b>6,6</b>	<b>6,8</b>
MgO			<b>1,3</b>	<b>1,3</b>	<b>0,8</b>	<b>1,6</b>	<b>1,6</b>	<b>1,6</b>	<b>1,6</b>	<b>1,6</b>
K <sub>2</sub> O			<b>5,0</b>	<b>5,0</b>	<b>2,9</b>	<b>3,8</b>	<b>3,6</b>	<b>3,6</b>	<b>3,6</b>	<b>3,6</b>
Na <sub>2</sub> O			<b>1,1</b>	<b>1,1</b>	<b>1,4</b>	<b>1,9</b>	<b>1,7</b>	<b>1,7</b>	<b>1,2</b>	<b>1,2</b>
P <sub>2</sub> O <sub>5</sub>			<b>0,5</b>	<b>0,5</b>	<b>0,9</b>	<b>tr</b>	<b>tr</b>	<b>tr</b>	<b>tr</b>	<b>tr</b>
<b>Thermal Expansion 20 to 750°C</b>	EN 821-1 : 1995	%	<b>0,4</b>	<b>0,4</b>	<b>0,4</b>	<b>0,4</b>	<b>0,4</b>	<b>0,4</b>	<b>0,4</b>	<b>0,4</b>
<b>Refractoriness</b>	ISO 528 : 1983	°C	<b>1140</b>	<b>1140</b>	<b>1400</b>	<b>1200</b>	<b>1200</b>	<b>1200</b>	<b>1200</b>	<b>1200</b>
<b>Refractoriness Under Load, T05</b> Load: 0.05 MPa	ISO 1893 : 2008	°C	<b>810</b>	<b>810</b>	<b>860</b>	<b>890</b>	<b>890</b>	<b>960</b>	<b>960</b>	<b>990</b>
<b>Total Porosity</b>	ISO 5016 : 1997	%	<b>82</b>	<b>80</b>	<b>80</b>	<b>82</b>	<b>80</b>	<b>78</b>	<b>76</b>	<b>72</b>
<b>Dimensional Tolerances</b> (Standard squares)										
<b>machined</b>	All dimensions	mm	<b>± 1.0</b>	<b>± 1.0</b>	<b>± 1.0</b>	<b>± 1.0</b>	<b>± 1.0</b>	<b>± 1.0</b>	<b>± 1.0</b>	<b>± 1.0</b>
<b>trimmed</b>	Length	mm	<b>± 2.0</b>		<b>± 2.0</b>	<b>± 2.0</b>	<b>± 2.0</b>	<b>± 2.0</b>	<b>± 2.0</b>	
	Width	mm	<b>± 2.0</b>		<b>± 2.0</b>	<b>± 2.0</b>	<b>± 2.0</b>	<b>± 2.0</b>	<b>± 2.0</b>	
	Thickness	mm	<b>± 1.5</b>		<b>± 1.5</b>	<b>± 1.5</b>	<b>± 1.5</b>	<b>± 1.5</b>	<b>± 1.5</b>	

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The above physical and chemical properties of Insulating Brick represent values obtained on standard squares in accordance with accepted test methods and are subject to normal manufacturing variations. This information is supplied as a technical service and may change without notice. Results should not be used for specification purposes, unless agreed with seller.