

# msb® AW-500

Light insulating perlite bricks



## AW-500

<b>Bulk Density:</b> <i>ISO 5016:1997</i>	..... Kg/m <sup>3</sup> ..... Lbs/cu.ft.	500 31
<b>Max. Service Temperature:</b>	..... °C ..... °F	900 1650
<b>Cold Crushing Strength:</b> <i>ISO 8895:2006</i>	..... Mpa ..... lbs/sq.in.	1.8 261
<b>Hot Crushing Strength:</b> @ 800°C (1472°F)	..... Mpa ..... lbs/sq.in.	2.5 363
<b>Refractoriness under Load:</b> <i>ISO 1893:2008</i> @ 857°C (1575°F) Load 0.05 MPa	..... %	0.5
<b>Modulus of Rupture (MOR):</b> <i>ASTM C 93-83</i>	..... Mpa ..... lbs/sq.in.	1.0 145
<b>Hot Modulus of Rupture:</b> <i>ASTM C-5-83</i> @ 800°C (1472°F)	..... Mpa ..... lbs/sq.in.	1.2 174
<b>Linear Reheat Shrinkage:</b> <i>ISO 2477:2005</i> 12 H @ 850°C (1560°F)	..... %	< 1.0
<b>Coefficient of Reversible Thermal Expansion:</b> <i>EN 821-1:1995</i> 20 to 750°C (68 to 1382°F)	..... °K <sup>-1</sup> ..... °F <sup>-1</sup>	3.4 x 10 <sup>-6</sup> 1.9 x 10 <sup>-6</sup>
<b>Total Porosity:</b> <i>ISO 5017:2013</i>	..... %	80

**AW-500**

**Thermal Conductivity:**

**ASTM C 182-88:2009**

W/m K

@ 200°C .....	0.13
@ 400°C .....	0.15
@ 600°C .....	0.18

Btu/(sq.ft.h°F/in)

@ 390°F.....	0.90
@ 750°F.....	1.04
@ 1110°F.....	1.25

**Refractoriness:**

**ISO 528:1983**

..... °C	1400
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**Typical Chemical Analysis:**

**XRF**

SiO <sub>2</sub> ( Silicon Dioxide ) .....	%	67.5
Al <sub>2</sub> O <sub>3</sub> ( Aluminium Oxide ) .....	%	22.5
TiO <sub>2</sub> ( Titanium Dioxide ) .....	%	1.1
Fe <sub>2</sub> O <sub>3</sub> ( Iron Oxide ) .....	%	2.0
CaO ( Calcium Oxide ) .....	%	0.9
MgO ( Magnesium Oxide ) .....	%	0.8
K <sub>2</sub> O ( Potassium Oxide ) .....	%	2.9
Na <sub>2</sub> O ( Sodium Oxide ) .....	%	1.4
Loss on Ignition.....	%	0.5

**Max. Dimensional Tolerances:**

Length.....	mm	± 1
Width.....	mm	± 1
Thickness.....	mm	± 1

**HS Tariff Number:**

(Harmonized Commodity Description and Coding System)

6901 0000

**Sizes available:**

All standard and double sizes as well as special shapes.

**Standard Packing:**

Double-deck, 4-way pallets, cardboard on 4 sides and top, nylon straps and shrink film.

The strength of the brick increases at rising temperature (see the front page).

Further details about specials etc. are available upon request.

Physical and thermal values are based upon regular, average test results.

No warranty or guarantee is implied on the data, which are given in good faith.

For special shapes and bricks above average size, slight variations in the above data may occur.

Independent test reports available upon request.

**simonsen a/s**

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Producer:  
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**An ISO-9001:2015 certified company**  
 Annicco, Cremona  
 ITALY

