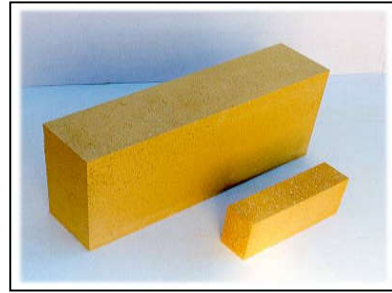


# msb<sup>®</sup>-450 & msb<sup>®</sup>-475

Light insulating perlite bricks



**simonsen<sup>®</sup>**

## MOSCONI msb-450 msb-475

<b>Bulk Density:</b> <i>ISO 5016:1997</i>	..... Kg/m <sup>3</sup>	425	440
	..... Lbs/cu.ft.	27	28
<b>Max. Service Temperature:</b>	..... °C	900	900
	..... °F	1650	1650
<b>Cold Crushing Strength:</b> <i>ISO 8895:2006</i>	..... Mpa	1.3	1.6
	..... lbs/sq.in.	189	232
<b>Hot Crushing Strength:</b> @ 800°C (1472°F)	..... Mpa	1.8	1.8
	..... lbs/sq.in.	261	261
<b>Refractoriness under Load:</b> <i>ISO 1893:2008</i> @ 820°C (1510°F) Load 0.05 MPa	..... %	0.5	0.5
<b>Modulus of Rupture (MOR):</b> <i>ASTM C 93-83</i>	..... Mpa	0.7	0.7
	..... lbs/sq.in.	102	102
<b>Hot Modulus of Rupture:</b> <i>ASTM C-5-83</i> @ 800°C (1472°F)	..... Mpa	0.9	1.2
	..... lbs/sq.in.	131	174
<b>Linear Reheat Shrinkage (LRS):</b> <i>ISO 2477:2005</i> 12 H @ 850°C (1560°F)	..... %	< 1.0	< 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>	3.4 x 10 <sup>-6</sup>	3.4 x 10 <sup>-6</sup>
	..... °F <sup>-1</sup>	1.9 x 10 <sup>-6</sup>	1.9 x 10 <sup>-6</sup>
<b>Total Porosity:</b> <i>ISO 5017:2013</i>	..... %	80	80

**MOSCONI**  
**msb-450 msb-475**

**Thermal Conductivity:**

**ASTM C 182-88:2009**

W/m K

@ 200°C.....	0.10	0.11
@ 400°C.....	0.12	0.13
@ 600°C.....	0.14	0.15

Btu/(sq.ft.h°F/in)

@ 390°F.....	0.69	0.76
@ 750°F.....	0.83	0.90
@ 1110°F.....	0.97	1.04

**Thermal Conductivity:**

**Hotwire Method - ISO 8894**

W/m K

@ 300°C.....	0.15	0.17
@ 600°C.....	0.18	0.18
@ 900°C.....	0.25	0.26

Btu/(sq.ft.h°F/in)

@ 570°F.....	1.04	1.18
@ 1110°F.....	1.25	1.25
@ 1650°F.....	1.73	1.80

**Typical Chemical Analysis:**

XRF

SiO <sub>2</sub> ( Silicon Dioxide ).....%	65.0	65.0
Al <sub>2</sub> O <sub>3</sub> ( Aluminium Oxide ).....%	15.0	15.0
TiO <sub>2</sub> ( Titanium Dioxide ).....%	0.5	0.5
Fe <sub>2</sub> O <sub>3</sub> ( Iron Oxide ).....%	4.0	4.0
CaO ( Calcium Oxide ).....%	7.0	7.0
MgO ( Magnesium Oxide ).....%	1.3	1.3
K <sub>2</sub> O ( Potassium Oxide ).....%	5.0	5.0
Na <sub>2</sub> O ( Sodium Oxide ).....%	1.1	1.1
Loss on Ignition.....%	0.5	0.5

**Max. sizes available:**

Length/Width:.....mm	250 to max. 500
Thickness.....mm	76, 100, 114, 124 & 152

**Max. Dimensional Tolerances:**

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

**HS Tariff Number:**

(Harmonized Commodity Description and Coding System)

6901 0000

**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.

**simonsen a/s**

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Producer:  
MOSCONI SRL.  
**An ISO-9001:2015 certified company**  
Annico, Cremona  
ITALY

