

# alubar® 1100

Refractory Barrier Bricks



simonsen®

|                                                                                                        |                             | Average Value | Guaranteed Value |
|--------------------------------------------------------------------------------------------------------|-----------------------------|---------------|------------------|
| <b>Bulk Density:</b><br><i>ISO 5017/ EN 993-1</i>                                                      | .....Kg/m <sup>3</sup>      | 2150          | ≥ 2080           |
|                                                                                                        | .....Lbs./cu.ft.            | 134           | ≥ 130            |
| <b>Max. Service Temperature:</b>                                                                       | ..... °C                    | 1100          |                  |
|                                                                                                        | ..... °F                    | 2012          |                  |
| <b>Cold Crushing Strength:</b><br><i>ISO 10059-1/ EN 993-5</i>                                         | .....MPa                    | 60            | ≥ 35             |
|                                                                                                        | .....Lbs./sq.in.            | 8700          | ≥ 5075           |
| <b>Modulus of Rupture:</b><br><i>EN 993-6</i>                                                          | .....MPa                    | 8.5           | ≥ 7.0            |
|                                                                                                        | .....psi                    | 1232          | ≥ 1015           |
| <b>Apparent Porosity:</b><br><i>ISO 5017/ EN 993-1</i>                                                 | ..... vol. %                | 14            | ≤ 17             |
| <b>Thermal Expansion:</b><br><i>DIN 51045</i>                                                          | @ 200°C (392°F)..... %      | 0.15          |                  |
|                                                                                                        | @ 400°C (752°F)..... %      | 0.23          |                  |
|                                                                                                        | @ 600°C (1112°F)..... %     | 0.36          |                  |
|                                                                                                        | @ 850°C (1562°F)..... %     | 0.50          |                  |
|                                                                                                        | @ 1000°C (1832°F)..... %    | 0.60          |                  |
| <b>Thermal Shock Resistance:</b><br><i>DIN 51068</i>                                                   | Number of cycles.....       | 15            |                  |
| <b>Cryolite Resistance:</b><br><i>Standardized "Cup-Test"</i>                                          | ..... cm <sup>2</sup> ..... | 3.5           |                  |
| <i>Max. dissolved area permitted 6 cm<sup>2</sup></i><br><i>Test Procedure available upon request.</i> |                             |               |                  |
| <b>Thermal Conductivity:</b><br><i>EN 993-15</i>                                                       |                             |               |                  |
| <b>W/(m· K)</b>                                                                                        | @ 300°C .....               | 1.26          |                  |
|                                                                                                        | @ 600°C .....               | 1.40          |                  |
|                                                                                                        | @ 1000°C .....              | 1.47          |                  |
| <b>Btul/(sq.ft.h·°F/in)</b>                                                                            | @ 572°F .....               | 8.74          |                  |
|                                                                                                        | @ 1112°F .....              | 9.71          |                  |
|                                                                                                        | @ 1832°F .....              | 10.20         |                  |

|                           |                                       |       |         |
|---------------------------|---------------------------------------|-------|---------|
| <b>Chemical Analysis:</b> | SiO <sub>2</sub> .....%               | 68    | 62 - 71 |
| <i>EN ISO 12677</i>       | Al <sub>2</sub> O <sub>3</sub> .....% | 26    | 23 - 31 |
|                           | Fe <sub>2</sub> O <sub>3</sub> .....% | ≤ 2.5 | < 3.0   |

|                                |                                                |                |          |
|--------------------------------|------------------------------------------------|----------------|----------|
| <b>Dimensional Tolerances:</b> | <b>Length</b> .....                            | ≤ 300 mm       | ± 2.0 mm |
|                                |                                                | 300 - 399 mm   | ± 3.0 mm |
|                                |                                                | 400 - 500 mm   | ± 4.0 mm |
|                                | <b>Width</b> .....                             | ≤ 125 mm       | ± 1.5 mm |
|                                |                                                | 125 - 299 mm   | ± 2.0 mm |
|                                |                                                | 300 - 399 mm   | ± 3.0 mm |
|                                |                                                | 400 - 500 mm   | ± 4.0 mm |
|                                | <b>Thickness</b> .....                         | ≤ 100 mm       | ± 1.0 mm |
|                                |                                                | 100 - 200 mm   | ± 2.0 mm |
|                                | <b>Warpage</b> .....                           | Length ≤250 mm | ≤ 1.0 mm |
|                                |                                                | Length >250 mm | ≤ 2.0 mm |
|                                | <b>Straight angle deviation</b> ≤ 250 mm ..... | max.           | 1.5 mm   |
|                                | up to max. 500 mm length and/or width .....    | max.           | 2.5 mm   |

|                                                      |       |        |
|------------------------------------------------------|-------|--------|
| <b>HS Tariff Number:</b>                             | ..... | 690220 |
| (Harmonized Commodity Description and Coding System) |       |        |

Physical and thermal values are based upon regular, average test results from brick size 220x110x60 mm.

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

Deviations are according to AQL 4.0

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An ISO-9001/50001 certified  
company

