



# SKAMOL V-1100 (475) vermiculite insulating board

for back-up insulation up to 1100°C (2012°F)



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| Grade   | V-1100 (475)                   |                      |
|---|--------------------------------|----------------------|
| <b>Maximum service temperature</b>  |                                |                      |
|   | °C                             | 1100                 |
|   | °F                             | 2012                 |
| <b>Bulk density, dry</b>  |                                |                      |
|   | kg/m <sup>3</sup>              | 475                  |
|   | lbs/cu.ft.                     | 29.6                 |
| <b>Compressive strength (EN 1094-5: 1995)</b>                                   |                                |                      |
| @ room temperature  | MPa                            | 2.5                  |
|   | lbs/sq.in.                     | 363                  |
| <b>Modulus of rupture (EN 993-6: 1995)</b>                                      |                                |                      |
|   | MPa                            | 0.8                  |
|   | lbs/sq.in.                     | 116                  |
| <b>Total porosity</b>   |                                |                      |
|   | %                              | 81                   |
| <b>Specific heat</b>  |                                |                      |
|   | kJ/(kg×K)                      | 0.94                 |
|   | BTU/(lb×°F)                    | 0.224                |
| <b>Coefficient of reversible thermal expansion (BS 1902: section 5.3: 1990)</b> |                                |                      |
| @ 20°C-750°C (68°F-1382°F)  | K <sup>-1</sup>                | 11×10 <sup>-6</sup>  |
|   | °F <sup>-1</sup>               | 6.1×10 <sup>-6</sup> |
| <b>Resistance to thermal shock (EN 993-11: 1998)</b>                            |                                |                      |
| heating to 950°C (1742°F)   | cycles                         | >20                  |
| <b>Linear reheat shrinkage (EN 1094-6: 1999)</b>                                |                                |                      |
| 12 h at 1000°C (1832°F)   | %                              | 1.0                  |
| 12 h at 1100°C (2012°F)   |                                | -                    |
| <b>Pyrometric cone equivalent (ASTM C24-89 ORTON cones)</b>                     |                                |                      |
|   | °C                             | 1300                 |
|   | °F                             | 2372                 |
| <b>Thermal conductivity (ASTM C-182)</b>  |                                |                      |
| mean temp. @ 200°C  | W/(m×K)                        | 0.14                 |
| @ 400°C   |                                | 0.17                 |
| @ 600°C   |                                | 0.19                 |
| @ 800°C   |                                | 0.20                 |
| @ 392°F   | BTU/(sq.ft.×h×°F/in)           | 0.97                 |
| @ 752°F   |                                | 1.18                 |
| @ 1112°F  |                                | 1.32                 |
| @ 1472°F  |                                | 1.39                 |
| <b>Chemical analysis, typical</b>   |                                |                      |
|   | %                              |                      |
| Silica  | SiO <sub>2</sub>               | 46                   |
| Titanium dioxide  | TiO <sub>2</sub>               | 0.7                  |
| Ferric oxide  | Fe <sub>2</sub> O <sub>3</sub> | 5.5                  |
| Alumina   | Al <sub>2</sub> O <sub>3</sub> | 7.0                  |
| Magnesium oxide   | MgO                            | 19                   |
| Calcium oxide   | CaO                            | 3.5                  |
| Sodium oxide  | Na <sub>2</sub> O              | 0.2                  |
| Potassium oxide   | K <sub>2</sub> O               | 10                   |
| Loss on ignition 1025°C (1877°F)  | LOI                            | 7.0                  |
| <b>Colour</b>   |                                |                      |
|   |                                | SAND                 |
| <b>HS Tariff number</b>   |                                |                      |
| (Harmonized Commodity Description and Coding System)                            |                                | 6806.90.00           |

Data are average results of tests conducted under standard procedures and are subject to variation. Data contained in this data sheet are supplied in good faith as a technical service and are subject to change without notice. Misprint and errors excepted.

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