

VIP-12 Vermiculite insulating boards

for hot-face and back-up insulation - up to 1150°C (2102°F)



| | | |
|--|--------------------------------|----------------------|
| Maximum service temperature | | |
| | °C | 1150 |
| | °F | 2102 |
| Bulk density, dry | | |
| | kg/m ³ | 1200 |
| | lbs/cu.ft. | 75 |
| Compressive strength (EN 1094-5: 1995) @ room temperature | | |
| | MPa | 11 |
| | lbs/sq.in. | 1595 |
| Modulus of rupture (EN 993-6: 1995) | | |
| | MPa | 3.6 |
| | lbs/sq.in. | 522 |
| Total porosity (EN 1094-4: 1995) | | |
| | % | 55 |
| Specific heat | | |
| | kJ/(kg×K) | 1.1 |
| | BTU/(lb×°F) | 0.27 |
| Coefficient of reversible thermal expansion (BS 1902: section 5.3: 1990) @ 20°C-750°C (68°F-1382°F) | | |
| | K ⁻¹ | 12×10 ⁻⁶ |
| | °F ⁻¹ | 6.7×10 ⁻⁶ |
| Resistance to thermal shock (EN 993-11: 1998) heating to 950°C (1742°F) | | |
| | cycles | >30 |
| Linear reheat shrinkage (EN 1094-6: 1999) | | |
| @ 1000°C | % | - |
| @ 1100°C | % | 1 |
| Pyrometric cone equivalent (ASTM C24-89 ORTON cones) | | |
| | °C | 1221 |
| | °F | 2230 |
| Thermal conductivity (ASTM C-182) | | |
| mean temp. @ 200°C | W/(m×K) | 0.23 |
| mean temp. @ 400°C | W/(m×K) | 0.26 |
| mean temp. @ 600°C | W/(m×K) | 0.29 |
| mean temp. @ 800°C | W/(m×K) | 0.33 |
| mean temp. @ 1000°C | W/(m×K) | |
| mean temp. @ 392°F | BTU/(sq.ft.×h×°F/in.) | 1.59 |
| mean temp. @ 752°F | BTU/(sq.ft.×h×°F/in.) | 1.80 |
| mean temp. @ 1112°F | BTU/(sq.ft.×h×°F/in.) | 2.01 |
| mean temp. @ 1472°F | BTU/(sq.ft.×h×°F/in.) | 2.29 |
| mean temp. @ 1832°F | BTU/(sq.ft.×h×°F/in.) | |
| Chemical analysis, typical | | |
| | % | |
| Silica | SiO ₂ | 51 |
| Titanium dioxide | TiO ₂ | 1.0 |
| Ferric oxide | Fe ₂ O ₃ | 3.0 |
| Alumina | Al ₂ O ₃ | 20 |
| Magnesium oxide | MgO | 10 |
| Calcium oxide | CaO | 0.7 |
| Sodium oxide | Na ₂ O | 0.1 |
| Potassium oxide | K ₂ O | 6.6 |
| Loss on ignition 1025°C (1877°F) | LOI | 4.0 |
| Colour | | sand |

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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.

Skamol A/S is DS/EN ISO 9001 certified.