

# Technical Data Sheet

## Material description

is a high temperature insulation board or shape part, made out of exfoliating vermiculite and an inorganic binder. The material is free of asbestos fibers and organic substance.

## Specification

|  |                   |   |                               |
|--|-------------------|---|-------------------------------|
| Designation                                      |                   | Vermiculite board / shaped part                       |                               |
| Dimension of board                               | mm                | 1220 x 2440 x th.8-35; 800 x 600 x th.15-80           |                               |
| Tolerance of thickness                           | mm                | ± 1   |                               |
| Tolerance of format                              | mm                | ± 5   |                               |
| Classification temperature                       | °C                | 1150  |                               |
| Building class material according to DIN 4102    |                   | A1, non-combustible                                   |                               |
| Building class material according to EN 13 501:1 |                   | A1, non-combustible                                   |                               |
| Bulk density                                     | kg/m <sup>3</sup> | 400 – 750; parameters below for 500 kg/m <sup>3</sup> |                               |
| Tolerance of density                             | %                 | ± 10  |                               |
| Cold compressive strength at deformation of 10%  | N/mm <sup>2</sup> | 4,38  |                               |
| Linear shrinkage after 12 h at 1150 °C           | %                 | 1,4   |                               |
| Specific heat capacity                           | kJ/kgK            | 0,8   |                               |
| Thermal conductivity                             |                   | Density 475 kg/m <sup>3</sup>                         | Density 600 kg/m <sup>3</sup> |
| 200 °C   | W/mK              | 0,192   | 0,228                         |
| 400 °C   |                   | 0,211   | 0,255                         |
| 600 °C   |                   | 0,224   | 0,265                         |
| 800 °C   |                   | 0,254   | 0,293                         |
| 1 000 °C   |                   | 0,296   | 0,326                         |
| Thermal length change                            | m/mK              | 8,5 · 10 <sup>-6</sup>                                |                               |
| Moisture content (in foil)                       | %                 | 2 - 3   |                               |
| Chemical analysis:                               |                   |   |                               |
| Al <sub>2</sub> O <sub>3</sub>                   | %                 | 9,10  |                               |
| SiO <sub>2</sub>                                 |                   | 54,75   |                               |
| MgO  |                   | 23,48   |                               |
| Alkali   |                   | 5,21  |                               |

The material doesn't contain the following six substances:

[Lead](#) (Pb), [Mercury](#) (Hg), [Cadmium](#) (Cd), [Hexavalent chromium](#) (Cr6+), [Polybrominated biphenyls](#) (PBB), [Polybrominated diphenyl ether](#) (PBDE).

The maximum permitted concentrations are 0.1% or 1000 ppm (except for cadmium, which is limited to 0.01% or 100 ppm) by weight of *homogeneous material*. This means that the limits do not apply to the weight of the finished product, or even to a component, but to any single substance that could (theoretically) be separated mechanically.

DecaBDE and any other flame retardants are not included with.

All technical data are mean values from the production, which are subject to the usual fluctuations.

They shall not be deemed as a guarantee of certain properties in the sense of a warranty.

All data correspond to the latest state of the art and have been presented and described to the best of our knowledge. Modifications resulting from the latest recognitions are possible. Errors and omissions are not excluded. Our terms of delivery and payment are valid in the event of any possible liability.

Ask for the safety data sheet.

This publication renders all previous ones invalid.