

53240 Vermiculite

Vermiculite is a hydrous phyllosilicate mineral which undergoes significant expansion when heated. Exfoliation occurs when the mineral is heated sufficiently, and commercial furnaces can routinely produce this effect. Vermiculite forms by weathering or hydrothermal alteration of biotite or phlogophite.

Chemical Analysis:

Main components:

SiO ₂	35 – 41 %
MgO	21.50 – 25.50 %
Al ₂ O ₃	6 – 9.50 %
Fe ₂ O ₃	6 – 9.50 %
K ₂ O	3 - 6 %
CaO	2 - 6 %
Na ₂ O	0.1 %
TiO ₂	0.60 – 1,0 %
F:	0.20 – 0.80 %
Cr ₂ O ₃ :	0.01 – 0.15 %
Cl:	0.00 – 0.50 %
CO ₂ :	0.60 – 2.50 %

Chemical and Physical Properties:

pH-Value:	approx. 7.5
Sintering temperature:	approx. 1260°C
Melting point:	approx. 1315°C
Thermal conductivity:	0.07 W/mK (DIN 4108)
Bulk density	100 – 125 g/l (DIN 1060)
Tamped volume:	650 – 900 ml/100 g

Non-combustible, classification A1