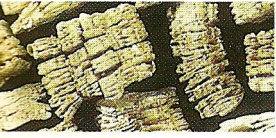


VERMICULITE

TECHNICAL DATA Exfoliated Vermiculite



Vermiculite is most widely used in its exfoliated form. The concertina-shaped granules of exfoliated vermiculite are non-combustible as well as being insoluble in water and all organic solvents. Completely safe and easy to handle, exfoliated vermiculite is available in six different grades as shown in the table below.

Volume Yields for Exfoliated Vermiculite

Grade	Typical loose bulk densities of product (kg/m ³)	Typical volume yields per tonne of crude vermiculite processed (m ³)
MICRON	95 – 105	8 – 9
SUPERFINE	80 – 90	9.5 – 10.5
FINE	75 – 85	11 – 12
MEDIUM	75 – 85	11 – 12
LARGE	65 – 75	13 – 14
PREMIUM	55 – 65	14 – 16

pH Value: 8 – 9.5

Thermal Conductivity:

0.062 – 0.065 W/m°C under ambient conditions.

Volume Yields

The typical loose bulk densities and volume yields produced in the preceding table are realistic values obtained by the commercial operation of the Mandoval S.S.T. Rotary Exfoliator.

The values will vary slightly depending on the type of furnace used, the efficiency of the vermiculite handling system and on the feed rate of the crude vermiculite into the furnace.

Specific Surface Area:

The specific surface area for exfoliated vermiculite, as measured by the nitrogen absorption technique, is typically:

SPECIFIC SURFACE AREA	m ² /g
MICRON	7.7
SUPERFINE	5.9
FINE	5.0

Absorption Capacity

All grades of exfoliated vermiculite will retain liquids within the inter-laminar voids of the individual particles as well as between the particles themselves.

The graph shown here gives an indication of the quantity of liquid which can be retained using Superfine grade vermiculite before drainage of the liquid occurs.

