



2002
PERLINDUSTRIA

Technical Data Sheet

Vermiculite V0 RA

Micron Grade

Vermiculite is a mineral formed by aluminium and iron-magnesium silicates extracted in open mines.

Vermiculite has the property of exfoliating when heated. The exfoliation range becomes 7 times its original volume and turns the dense mineral flakes into light porous granules containing innumerable layers of air.

The exfoliated vermiculite is light and clean, has a high value of thermal and acoustic insulation, is incombustible and insoluble to water and has the ability to absorb liquids.

Physical properties

| | |
|------------------------------|--|
| Colour | Brown |
| Apparent density | 90-130 kg/m ³ (according PLAB 0701) |
| Compacted density | 105-155 kg/m ³ (according PLAB 0702) |
| Melting temperature | 1.260 - 1350 °C |
| Softening temperature | 1150 – 1250 °C |
| PH (in water) | 7-9 (according PLAB 0705) |
| Non floating (weight) | < 15 % (according PLAB 0741) |
| Non floating (volume) | < 2,3 % (according PLAB 0741) |
| Relative humidity | < 2,5 % (according PLAB 0713) |
| Moisture Absorption | < 5 % |
| Calcination | 2-6 % (according PLAB 0718) |
| Re-expansion | < 0,14 % |
| Refractive index | 1.5 |
| Thermal conductivity | ≤ 0.04 W/mK a 20 °C |
| Specific heat | 0.84 kJ/kgK |
| Combustibility | Non-combustible |
| Asbestos | Asbestos free |

Applications

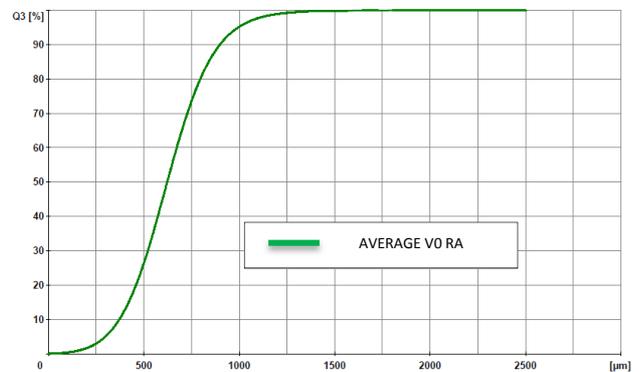
- Production of mortars or light concretes intended to be used as thermal insulation or passive fire protection
- Thermal insulation for fireplaces and boilers.
- Substrate for hydroponic crops.
- Absorbent of moisture and other liquid contaminants
- Animals food
- Transport for dangerous goods

Packaging and conservation

It can be packed in bags with 39 or 36 bags per pallet, big bags with 3 big bags per pallet and tanker truck. Keep the original packaging in a cool and dry place.

Particle size

| Sieve (µm) | % detained (vol.) |
|------------|-------------------|
| 2000 | 0 % |
| 1000 | 1-10 % |
| 630 | 15-70 % |
| 315 | 20-70 % |
| 160 | < 20 % |
| 0 | <4 % |



* According to PLAB 0749.

Average particle size: 630 µm (reference value)

Characteristics

| % Intern (vol.) | Average size (reference value) |
|-----------------|--------------------------------|
| 10 | 370 µm |
| 50 | 625 µm |
| 90 | 1500 µm |

Chemical composition

| | |
|-----------------------------------|---------|
| SiO ₂ | 35-47 % |
| Al ₂ O ₃ | 6-12 % |
| K ₂ O | 3-8 % |
| MgO | 21-26 % |
| Fe ₂ O ₃ | 6-15 % |
| H ₂ O (combined water) | <1 % |

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