



2002  
PERLINDUSTRIA

# Technical Data Sheet

## Perlite V-10F

Perlite is an amorphous volcanic glass that has relatively high water content. It is a mineral that appears in nature, and has the rare property of expanding very much when heated sufficiently.

When it reaches temperatures of 850-900 ° C, the perlite softens. Water trapped in the structure of the material escapes and vaporizes, causing its expansion. The expanded material is a bright white colour, due to the reflectivity of the trapped bubbles.

The expanded perlite, after going through a crushing process, is transformed into a filter whose particles form a non-compressible cake, with 85% of hollow spaces to filter the liquids, being retained in the cake the solid elements in suspension including the of microscopic size.

### Physical properties

<b>Colour</b>	White
<b>Bulk Density</b>	60-80 kg/m <sup>3</sup> (according to PLAB 0701)
<b>Compacted Density</b>	80-120 kg/m <sup>3</sup> (according to PLAB 0702)
<b>Melting temperature</b>	1260 - 1350° C
<b>Softening temperature</b>	1150 – 1250° C
<b>PH (in water)</b>	8-9 (according to PLAB 0705)
<b>Refraction Index</b>	1.5
<b>Relative humidity</b>	< 2 % (according to PLAB 0713)
<b>Calcination</b>	< 5 % (according to PLAB 0718)
<b>Non-floating</b>	< 25 % (according to PLAB 0741)
<b>Thermal Conductivity</b>	≤ 0.04 W/mK to 20 °C
<b>Specific heat</b>	0.84 kJ/kgK
<b>Combustibility</b>	Non-combustible
<b>Asbestos</b>	Asbestos free

### Applications

- Manufacture of plaster and lightened mortars.
- Products for passive protection (mortars and plates)
- Textile washing.
- Manufacture of refractory products.

### Packaging and conservation

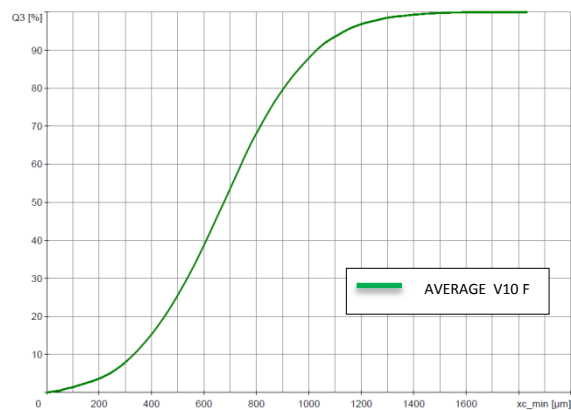
The Perlite can be packaged in 100 litter bags, containing each pallet 36 bags. It can also be packed in big bags, containing each pallet 3 big bags. Moreover, it can also be sold by with tank truck

Keep the original packaging in a cool and dry place.

### Particle size

Sieve (µm)	% retained (vol.)
2000	0 %
1400	< 5 %
500	60-80 %
300	15-35 %
150	< 10 %
0	< 2 %

\* According to PLAB 0749.



### Features

% Intern (vol.)	Average size (reference value)
10	350 µm
50	700 µm
90	1050 µm

### Chemical composition

SiO <sub>2</sub>	70-80 %
Al <sub>2</sub> O <sub>3</sub>	12-16 %
Na <sub>2</sub> O	2-5 %
K <sub>2</sub> O	2-5 %
CaO	0-2 %
MgO	0-1 %
Fe <sub>2</sub> O <sub>3</sub>	0-1 %
H <sub>2</sub> O (combined water)	<1 %