



2002  
**PERLINDUSTRIA**

# Technical Data Sheet

## Perlite M330

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 a lot 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 has 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 mass, with 85% of hollow spaces to filter the liquids, being retained in the mass the solid elements in suspension including the of microscopic size.

### Physical properties

<b>Colour</b>	White
<b>Bulk Density</b>	120-160 kg/m <sup>3</sup> (according to PLAB 0701)
<b>Compacted Density</b>	150-190 kg/m <sup>3</sup> (according to PLAB 0702)
<b>Cake density</b>	275-325 kg/m <sup>3</sup> (according to PLAB 0752)
<b>Non-floating</b>	<10 ml in 20 g (according to PLAB 0751)
<b>Permeability Darcy</b>	<5 (according to PLAB 0753)
<b>Melting point</b>	1,200 ° C
<b>PH (in water)</b>	6.5-7.5 (according to PLAB 0705)
<b>Thermal Conductivity</b>	0.054 W/mK
<b>Specific heat</b>	0.837 kJ/kgK
<b>Combustibility</b>	Non-combustible. A1 Class
<b>Asbestos</b>	Asbestos free

### Applications

- Filtration of pharmaceutical liquids in general.
- Filtration of food liquids (wine, glucose, sugar, beer, liquors, oils, etc.).
- Product used to make the pre-layers of the filters by alluvion and press filters.

### Packaging and conservation

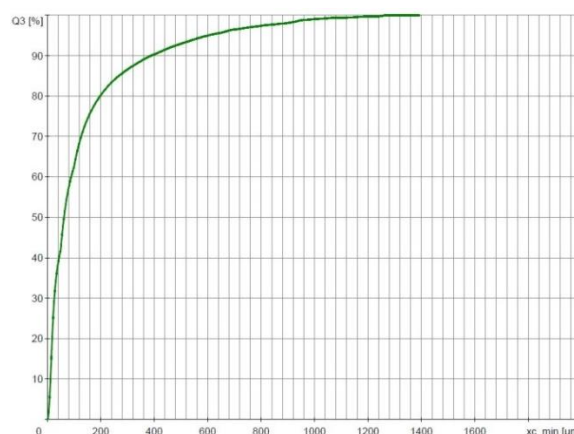
The Perlite can be packaged in bags of 100 litres, with 39 bags per pallet. It also can be packed by big bags or with tank truck.

Keep the original packaging in a cool and dry place.

### Granulometry

Sieve (µm)	% retained (vol.)
1400	0 %
600	< 5 %
300	< 10 %
150	5-15 %
40	< 40 %
0	< 40 %

\*According to PLAB 0749.



Average particle size: 125 µm (reference value)

### Features

% Intern (vol.)	Average size (reference value)
10	10 µm
50	50 µm
90	180 µm

### Chemical composition

<b>SiO<sub>2</sub></b>	74-78%
<b>Al<sub>2</sub>O<sub>3</sub></b>	11-14 %
<b>Na<sub>2</sub>O</b>	3-6 %
<b>K<sub>2</sub>O</b>	2-4 %
<b>CaO</b>	1-2 %
<b>MgO</b>	0-0.5 %
<b>Fe<sub>2</sub>O<sub>3</sub></b>	0.5-1.5 %

