

2002
PERLINDUSTRIA

Technical Data Sheet

Perlite V5

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

Color	White
Bulk Density	35-60 Kg/m ³ (according PLAB 0701)
Compacted Density	45-80 Kg/m ³ (according PLAB 0702)
Melting temperature	1.260 - 1350 °C
Softening temperature	1150 – 1250 °C
PH (in water)	7-10 (according PLAB 0705)
Non-floating	<5 % (according PLAB 0741)
Relative humidity	0-0,5% (according PLAB 0713) * Once stored it can reach up to 2%.
Calcination	<3 % (according PLAB 0718)
Refraction Index	1.5
Thermal Conductivity	≤ 0.04 W/mK at 20 °C
Specific heat	0.84 kJ/kgK
Combustibility	Non-combustible
Asbestos	Asbestos free

Applications

- Cryogenics. LNG tanks insulation.
- Manufacture of plaster and lightened mortars.
- Products for passive protection (mortars and plates)
- Textile washing.

Packaging and conservation

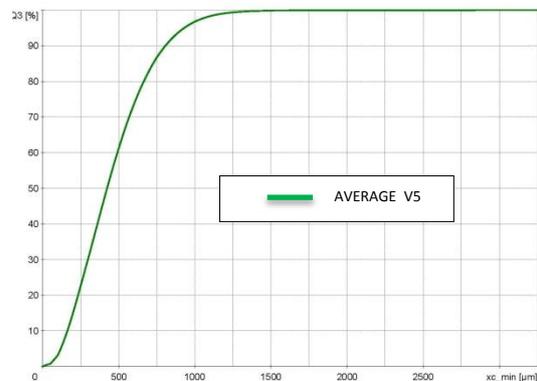
The Perlite can be packaged in 125 litter bags, containing each pallet 26 bags. It can also be packed in big bags. Moreover, it can also be sold by tank truck.

Keep the original packaging in a cool and dry place.

Granulometry

Sieve (µm)	% retained (vol.)
1180	90-100 %
850	65-100 %
600	30-95 %
300	10-70 %
150	0-30 %

*According to PLAB 0749.



Features

Average particle: 460 µm (reference value).

% Intern (vol.)	Average size (reference value)
10	162 µm
50	423 µm
90	807 µm

Chemical composition

SiO₂	70-80 %
Al₂O₃	12-16 %
Na₂O	2-5 %
K₂O	2-5 %
CaO	0-2 %
MgO	0-1 %
Fe₂O₃	0-1 %
H₂O (combined water)	<1 %