

Technical Data Sheet

Perlite V-10

Description

Perlite is an amorphous volcanic glass that has relatively high water content. It's a mineral that occurs in nature and has the unusual property of greatly expand when it's heated.

When perlite reaches temperatures of 850-900 ° C, perlite softens (because it is a glass). Water trapped in the structure of the material is vaporized and escapes, and this causes the expansion of the material up to 10-12 times its original volume. The expanded material is a bright white, due to the reflectivity of the trapped bubbles.

Physical properties

- Color White
- Loose Density 60-100 kg/m³ (according PI 200-77)
- Compacted Density 90-110 kg/m³ (according PI 200-77)
- pH (in water) 7-10 (according PI 202-77)
- Sieve Analysis

Mesh (µm)	% retained
3150	< 1 %
1400	5-15 %
600	65-75 %
300	5-15 %
150	< 5 %
Dust	< 5 %

- Free Moisture <0.5 % (according PI 118-77)
- Refractive Index 1.5
- Softening Temperature 1150-1250 °C
- Melting Temperature 1260-1350 °C
- Thermal Conductivity ≤ 0.04 W/mK a 20 °C (according ASTM 177)
- Heat Specific 0.84 kJ/kgK
- Combustibility Non combustible
- Asbestos Asbestos Free

Chemical Properties

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

Packaging

Perlite is packed in bags of 166 liters, with 26 bags for pallet. It also can be packed by big bags or tanker.