



Fine graded expanded perlite. Natural, non-toxic, inert, lightweight, thermoinsulating, non combustible product obtained by a thermal expansion process of a specific variety of effusive volcanic rock. The product is suitable for many industrial applications: lightening of manufactured products, raw material floor mortars and plasters, filler for plastics, rubber and coatings, abrasive, for environmental and tanks remediation.

The use of particular raw materials selected at the origin and the thermal expansion process with methane burners allow to get an inorganic product, stable and chemically inert. After expansion Perlite is placed in bags/big bags or sent to silos for bulk delivery. Perlite can withstand biological attacks and will not deteriorate or rot, even after long storage periods.

Special treatments

On request, Peralit 13 can be heat treated with polymers in an aqueous solution, that provide excellent water repellency performance and strongly reduce water absorption capacity and moisture retention.

Chemical-physical characteristics

Aspect	granular solid
Particle size	0,1 ÷ 1 mm
Loose bulk density	70 ÷ 80 kg/m ³ ± 15 %
Compacted bulk density	85 ÷ 95 kg/m ³ ± 15 %
Color	white
Thermal conductivity λ mean	0,041 W/mK - Certificate of Conformity 0497/673/06 - Lab. Istituto di Certificazione CSI-Bollate
Reaction to fire	Class A1 – non combustible (D.M. 10.3.2005)
Specific heat	837 J/kg°K
Melting point	1.200°C
pH	6,5 ÷ 7,5
Solubility	<ul style="list-style-type: none"> • insoluble - in water, organic and mineral acids at low and high temperature • soluble - in strong alkali, according to the temperature and time of contact and in hydrofluoric acid

Peralit 13 siliconato (waterproof)

Thermal conductivity λ mean	0,043 W/mK - Certificate of Conformity 0497/677/06 - Lab. Istituto di Certificazione CSI-Bollate
Water repellency	WR 175 ml (UNI EN 14316-1 – App. E)

Raw material chemical composition

Silicon Oxide	SiO ₂	74 ÷ 78%
Aluminum Oxide	Al ₂ O ₃	11 ÷ 14%
Iron Oxide	Fe ₂ O ₃	0,5 ÷ 1,5%
Sodium Oxide	Na ₂ O	3 ÷ 6%
Potassium Oxide	K ₂ O	2 ÷ 4%
Calcium Oxide	CaO	1 ÷ 2%
Magnesium Oxide	MgO	0 ÷ 0,5%

Particle size distribution

2,8 mm sieve	0 ÷ 17%
2,0 mm sieve	10 ÷ 45%
1,0 mm sieve	20 ÷ 70%
0,5 mm sieve	5 ÷ 40%
0,25 mm sieve	5 ÷ 15%
Sieve residue < 0,25 mm	1 ÷ 25%

Packaging and storage

Packaging

- 100 liters paper bags, measured in loose bulk (uncompacted)
- 3 m³ big cloth bags (1 m³ on request)
- in bulk, loaded on tank trucks

Storage

Periodic has no expiration date and has a very good storage stability.

CE marking

Peralit 13 and Peralit 13 siliconato (Waterproof) are CE marked according to UNI EN 13055-1 normative "Lightweight aggregates for concrete and plasters" and UNI EN 14316-1:2005 "In-situ thermal insulation formed from expanded perlite (EP) products" as indicated in the European Construction Products Regulation 305/2011 CEE.

Quality

Peralit 13 is produced following the specifications of a quality system and all the activities, which have a bearing upon quality, are set out in written procedures, according to EN ISO 9001. Test equipments and all materials are subjected to systematic and regular checks.

This sheet is intended to provide information on the characteristics and methods of application of the described material. The technical data shown relate to average production values and are therefore subject to periodic revision. Perlite Italiana reserves the right to make any changes and variations it deems appropriate at any time; it is therefore in the user's interest to check he has got the updated version of the sheet.



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