



13 PERLITE



PRODUCT DESCRIPTION

Perlite is a naturally occurring volcanic glass containing water, which expands when rapidly heated to around 850–900°C. Expanded perlite is lightweight, chemically inert, non-flammable, and used across various industries for insulation, filtration, and as a lightweight filler.

CHEMICAL COMPOSITION (XRF Analysis)

COMPONENT	wt%
SiO ₂	69.5
Al ₂ O ₃	12.8
Fe ₂ O ₃	0.94
CaO	0.8
MgO	0.5
MnO	0.11
P ₂ O ₅	2.5 – 5.0
SO ₃	0

PHYSICAL PROPERTIES

PROPERTY	UNIT	SPECIFICATION
pH	–	7.0 – 7.5
Thermal Conductivity	W/m·K	360
Hardness (Mohs)	–	5.5 – 7
Water Solubility	%	0.0008
Acid Solubility (HCl 1:3)	%	0.015
Bulk Density	kg/m ³	100 – 120

PARTICLE SIZE RANGE (GRADES)

GRADE NAME	SIZE (mm)	DESCRIPTION
Coarse	8 – 4	Expanded coarse grade
Medium	5 – 3	For general-purpose use
Fine	3 – 1	Insulation, horticulture
Powder / Dust	< 1	Filtration, additives

APPLICATIONS



CONSTRUCTION

Lightweight aggregate in plasters, mortars, and insulation panels.



FILTRATION

Liquid filtration media for beverages and chemicals.



AGRICULTURE

Soil conditioner, moisture retention, root aeration.



INDUSTRIAL

Cryogenic insulation, foundry, and refractory materials.

HEALTH AND SAFETY

- Avoid dust inhalation; use protective masks.
- Store in a dry environment away from moisture.
- Handle gently to avoid particle breakage.

AVAILABLE FORMS



LUMP PERLITE



GRANULAR PERLITE



POWDER PERLITE

PACKAGING

- Palletized Bags (in container)
- 1 m³ Jumbo Bags (in container)



PERLITE RAW & POWDER APPLICATIONS



CONSTRUCTION

FILTRATION

AGRICULTURE

INDUSTRIAL
(CRYOGENIC INSULATION)

FOUNDRY

REFRACTORY
MATERIALS